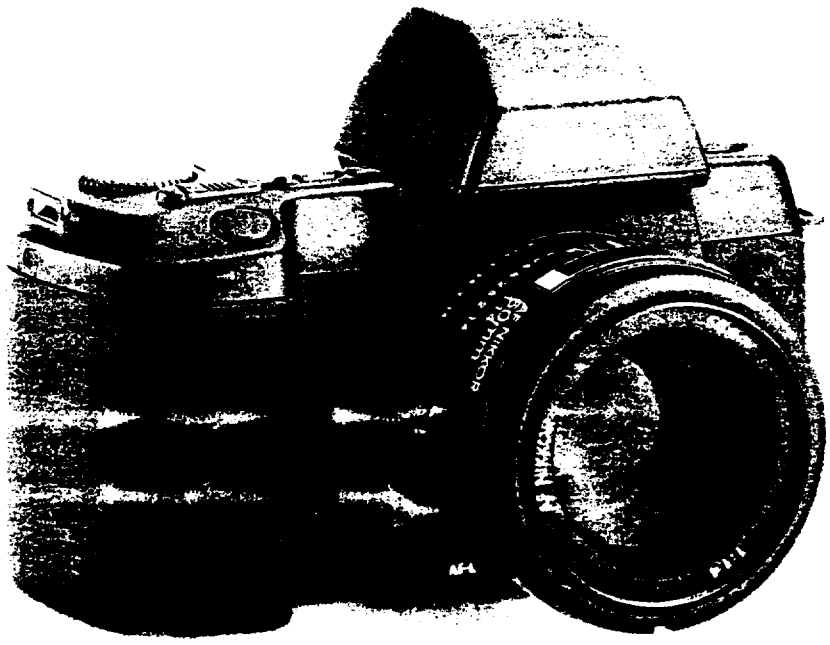
# PRACTICAL REPAIR MANUAL

## Nikon F-801 AF / N8008



Nikon

NIKON CORPORATION

Tokyo, Japan

└ O=Output

I/O=Input/Output

# DISPLAY & OPERATION IN EACH EXPOSURE MODE

| | WITH CPU LENS ATTACHED | WITH NON-CPU LENS OR NO LENS ATTACHED | FLEXIBLE PROGRAM AND ITS CANCELLATION | OUTSIDE AVAILABLE EXPOSURE RANGE OR METERING RANGE | WHEN LENS APERTURE IS NOT SET TO THE MINIMUM | WARNING FOR POSSIBLE PICTURE BLUR | DISPLAY OF SHUTTER SPEED | SHUTTER SPEED CONTROLLED | DISPLAY OF APERTURE WITH CPU LENS | APERTURE VALUE CONTROLLED |
|---|---|---|---|---|---|---|---|---|---|---|
| $P_D$ / P / $P_H$ | ・In $P_D$ mode, program line is automatically switched to $P_H$ program with the lens of 135mm or longer focal length. Exposure is controlled in P mode. | MODE: SET → A MODE<br>MODE DISPLAY: BLINKS.<br>APERTURE DISPLAY: F--<br>AMP DISPLAY: ⊡ BLINKS.<br>ATTACH CPU LENS. ↓<br>MODE: A → SET MODE<br>MODE DISPLAY: LIGHTS UP.<br>APERTURE DISPLAY: SET APERTURE VALUE<br>AMP DISPLAY: ⊡ LIGHTS UP. | When program is shifted:<br>MODE DISPLAY: blinks.<br>Cancellation<br>・Turn command dial reversely.<br>MODE DISPLAY: LIGHTS UP.<br>・After pre-release<br>・When power is off<br>・After 2-button reset | MODE DISPLAY: HI / Lo<br>■»» SET: BEEPER SOUNDS<br>・Shutter does not lock. | APERTURE DISPLAY: FEE<br>■»» SET: BEEPER SOUNDS<br>・Shutter locks.<br>(If the difference is 2/3 step from min. aperture, shutter does not lock. | If power SW is set to ■», beeper sounds. (Except in AE lock mode) | ・1EV step | ・As per program line | ・1EV step | ・As per program line |
| S | Exposure is controlled in S mode. | | MODE DISPLAY: HI / Lo<br>■»» SET: BEEPER SOUNDS | ・Shutter does not lock.<br>・Exposure indicator is displayed. (Outside control range)<br>・◀▶ mark is displayed. (Outside metering range.) | | | ・30-1/8000 sec. 1EV step<br>・Bulb mode is unusable. In case exposure mode is switched to S from M and shutter speed is set to Bulb, display of "bulb" blinks and shutter locks. In this case, select other shutter speed. | | ・1EV step within the range of available lens aperture | ・Within the range of available lens aperture<br>・※※ |
| A | Exposure is controlled in A mode. (Turning command dial is ineffective.) | APERTURE DISPLAY: F--<br>AMP DISPLAY: ⊡ BLINKS.<br>Exposure is controlled in A mode. | SHUTTER DISPLAY: HI / Lo<br>■»» SET: BEEPER SOUNDS<br>・Shutter does not lock.<br>・Exp. indicator is displayed. (Outside control range)<br>・◀▶ mark appears. (Outside metering range) | | | If power SW is set to ■», beeper sounds. (Except in AE lock mode) | ・30~1/8000 sec. 1EV step | ・30~1/8000 sec.<br>・※ | ・1EV step within the range of available lens aperture | ・Aperture manually set |
| M | Exposure is controlled in M mode. | APERTURE DISPLAY: F--<br>AMP DISPLAY: ⊡ BLINKS.<br>Exposure is controlled in M mode. | ・Difference from correct exposure is displayed by 1/3EV within ±2EV.<br>・If the difference is over ±2EV, ◀▶ mark appears.<br>・HI/LO display does not appear. | | | | ・Bulb 30~1/8000 sec. 1EV step | ・Bulb 30~1/8000 sec. 1EV step | ・1EV step | ・Aperture manually set |

※ When Lo is displayed: 30 sec., When Hi is displayed: 1/8000 sec.

※※ When Lo is displayed: Max. aperture, When Hi is displayed: Min. aperture

Illuminator

1) The viewfinder LCD is illuminated by pressing the viewfinder illumination button during the pre-release duration.
2) The pre-release timer is counted when the finger is removed from the viewfinder illumination button. The illuminator goes out at the same time as the pre-release timer turns off.
3) If the ambient light becomes darker than a certain level, the illuminator automatically lights up during the pre-release duration.

Depth-of-field preview button

If the depth-of-field preview button is depressed, the following function works.

1) Shutter locks.
2) Metering circuit stops working.
3) Exposure LCD display goes out. (The display "F--" appears.)

Warning sound

Warning sound is given in the following occasion:

| | Cause | Condition |
|---|---|---|
| | Mis-setting of aperture dial (FEE/shutter lock) | During pre-release duration |
| AE | Slow shutter speed (Possible picture blur) | During pre-release duration (except S and M mode and AE-L state) |
| | Over- or underexposure/ Outside metering range | While shutter release button is lightly depressed |
| | Non-DX film is loaded with DX film speed setting | During pre-release duration |
| MD | Film end | During pre-release duration Stops when rewind starts |
| | Sequence error | During pre-release duration |
| | Film rewind is completed | During pre-release duration after film rewind Stops when camera back is opened |
| | Self-timer | During self-timer operation |

AE lock

1) BV memory system
The following operation is available in each mode in the AE lock state

a. Program shift in P mode
b. To change the shutter speed in S mode
c. To change the aperture in A mode

2) Beeper does not sound in AE lock state.

Shutter

1) Electromagnetically controlled vertical-travel focal-plane shutter
2) Both opening and closing shutter curtains consist of five pieces of shutter blade.
3) Controlled with two magnets
4) Shutter curtain traveling speed: 2.7msec (24mm frame)

Self-timer

1) Timer duration and two-shot self-timer remains after shooting.
2) Exposure value is decided when the self-timer starts. (In case of two-shot self-timer, the same exposure value is used for the 2nd shot.)
3) Film advances by one frame with the ordinary self-timer and two frames with the two-shot self-timer disregarding the film advance mode (S, CH or CL).
4) Shutter is released the instant that the timer duration in set is counted out disregarding the focus mode (S, C or M).
5) Focusing is not made after the self-timer starts unless shutter button is lightly depressed.
6) If the self-timer is activated with the shutter speed set to bulb, the shutter speed is shifted to approx. 1/4-1/8 sec..
7) When the multi exposure mode is set, self-timer works as follows:

| | |
|---|---|
| Single-frame self-timer | Shutter is released the instant timer duration is counted out. |
| Two-shot self-timer | Timer duration for 1st and 2nd shot is 10 sec. and 5 sec. respectively. |

Multiple Exposure 1) Combination with each film advance mode

| Film adv. mode | Multi Exposure mode |
|---|---|
| S | ME-S |
| CH | ME-C |
| CL | ME-C |

2) Relation to AF servo mode

| | AF-C | AF-S |
|---|---|---|
| ME-C | *Focusing starts when shutter release button is depressed lightly.<br>*While shutter release button is fully depressed, shutter is released by the number of times in set disregarding focusing condition.<br>*In CH mode, focus is locked at the 1st shot.<br>*In CL mode, focusing is made for approx. 200ms before each shot. | *Focusing starts when shutter release button is depressed lightly. (Focus is locked once it becomes correct.)<br>*Focusing is made before every shot. Shutter is released continuously by the number of times in set as long as the shutter release button is fully depressed. |
| ME-S | *Focusing starts when shutter release button is depressed lightly.<br>*Shutter is released once disregarding the focusing condition. | *Focusing starts when shutter release button is depressed lightly.<br>*Shutter is not released until correct focus is available even if the shutter release button is fully depressed. |
| | Shutter is released every time shutter release button is fully depressed. | |

3) Cancellation

a. Cancelled automatically when every exposure in set is completed

b. Before the 1st exposure:
Set the ME number to "1".

c. After the 1st exposure
Turn the command dial while depressing the ME button and set the ME number to " " (blank). Then, remove the finger from the button.

d. Push MODE button and DRIVE button at the same time.
(Two-button reset) (Exposure mode is set to P mode.)

Note: In case of b to d, film advance is executed as follows:

Before the 1st exposure: Film does not advance and camera returns to the ordinary condition.
After the 1st exposure : Film advances by one frame and camera returns to the ordinary condition.

Film advance

a. Film advance motor is located outside the spool and execute film advance and rewind.
b. Spool driving system is incorporated. (Sprocket works as a follower to detect the film perforation and is not related to film advance mechanism.)

1) Film advance mode
   a. Single frame shooting mode (S)
   b. Continuous High shooting mode (CH)
   c. Continuous Low shooting mode (CL)

2) Film advance amount
   Film advance photo interrupter monitors the rotation of sprocket.
   38mm (1 frame) = 114 pulses
   The speed of film advance motor is detected immediately after reference SW turns off. (Ref SW turns off when 57 pulses are output.) The motor is braked according to the speed to prevent the unevenness due to the load of film.

3) Blank exposure
   a. Turning of reference SW is detected four times. When 57 pulses are output after the 4th turning off of reference SW, film advance stops. (Blank shots: 3.5 - 4.5 frames)

4) When camera back is open:
   a. Blank exposure is unavailable.
   b. Shutter locks. (Sequence operation is impossible, autofocus is available.)
   c. Sequence operation is possible only when the shutter speed is set to M1/250 in M mode. Even in this case, film advance motor does not operate.

5) When camera back is closed (film unloaded):
   If the shutter release button is fully depressed, film advance motor rotates for 700ms, and it stops while making sure that film advance photo interrupter outputs no pulse. Sequence motor does not operate in this period. If shutter release button is fully depressed in pre-release duration (8 sec.) after the blank exposure, sequence motor starts operating and the camera works as the ordinary shot. (Film advance motor does not operate.)

6) When DX-coded film is loaded:
   The film installation mark ( ◎ ) is displayed when the shutter release button is lightly depressed. If the shutter release button is fully depressed in this state, blank exposure is made and correct film loading mark ( ▬ ) is displayed.

*If 57 pulses are not output in 700ms after reference SW turns off or reference SW does not turn off in 700ms after photo onterrupter outputs 57 pulses, film advance motor stops and the shutter locks. In this case, incorrect-film-loading warning is given. If again shutter release button is fully depressed after pre-release timer turns off, shutter locks and warning repeats.

7) When Non-DX-coded film is loaded:
The blank exposure is made when the shutter release button is fully depressed. After the blank exposure, film installation mark and correct film loading mark are displayed.
If photo interrupter pulse or turning off of reference SW is not detected in 700ms after blank shots starts, film advance motor stops and the camera enters the same condition as 5). (The same condition as the above section marked with *)

8) When film reaches its end:
If the pulse from the film advance photo interrupter or turning off of the reference SW is not detected in a pulse detection period* (300ms each) after the film advance motor starts rotating, the motor stops and the film end warning is displayed.

*Pulse detection period: One-frame film advance is divided into nine periods to detect photo interrupter pulse and turning off of reference SW.

9) Film rewind
If film advance photo interruper outputs no pulse for two seconds, film advance motor stops.

When film rewind is completed:
a. The film leader is pulled into the cartridge
b. The display "E" appears.
c. Beeper sounds during pre-release duration. (Stops if camera back is opened.)
d. Motor rotates in the film advance direction for approx. 50ms to release the clatch of the planetary gear.

10) Frame counter
Accumulative type (Added during the sequence control operation after every shutter release); Counts back while film is rewinding (Counts back by the pulse of film advance photo interrupter.)

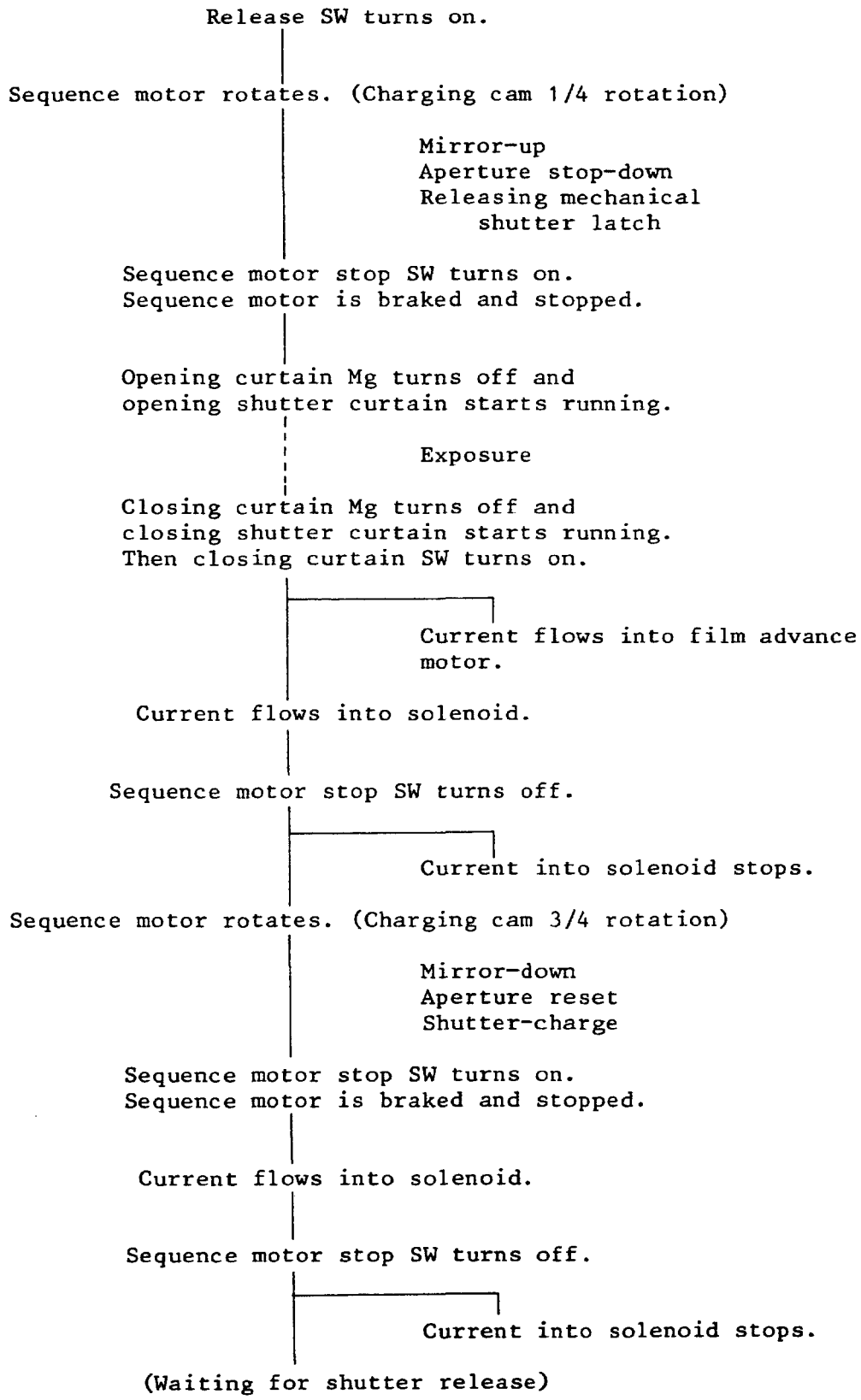
The frame counter is not reset if the camera back is opened during the film advance. In this case, the frame number when the camera back is opened is kept memorized.

In order to reset the frame counter, do film rewind until the frame counter returns to "E".

Sequence control

a. A coreless motor located inside the spool is used.
b. The mirror, aperture and shutter are operated.
c. The motor rotates in one direction.
d. While the charging cam, which is coupled with the motor, makes the 1/4 rotation, Mirror-up, aperture stop-down and releasing mechanical shutter latch are executed. During the rest 3/4 rotation, the mirror returns down, the aperture is reset and the shutter is charged.

1) Sequence operation


Release SW turns on.
Sequence motor rotates. (Charging cam 1/4 rotation)
Mirror-up
Aperture stop-down
Releasing mechanical shutter latch
Sequence motor stop SW turns on.
Sequence motor is braked and stopped.
Opening curtain Mg turns off and opening shutter curtain starts running.
Exposure
Closing curtain Mg turns off and closing shutter curtain starts running.
Then closing curtain SW turns on.
Current flows into film advance motor.
Current flows into solenoid.
Sequence motor stop SW turns off.
Current into solenoid stops.
Sequence motor rotates. (Charging cam 3/4 rotation)
Mirror-down
Aperture reset
Shutter-charge
Sequence motor stop SW turns on.
Sequence motor is braked and stopped.
Current flows into solenoid.
Sequence motor stop SW turns off.
Current into solenoid stops.
(Waiting for shutter release)

Automatic changeover to serial control
(S2, CL2, CH2 mode)

1) Ordinarily, the film advance motor and the sequence motor are operated at the same time in any film advance mode (S, CL or CH). However, if the power has dropped to the low level or the temperature is low, the mode is automatically shifted to S2, CL2 or CH2 mode, in which the motors work by turns (not at the same time).
The camera mode is shifted to S2, CL2 or CH2 in any of the following conditions:

A : It takes more time for Mirror-up than usual.
B-1: Film advance becomes slower immediately after it starts.
B-2: Film advance becomes slower halfway.

2) Once the camera mode is shifted to S2, CL2 or CH2 mode, it is restored to S2, CL or CH mode in the following conditions:

a : Necessary time for Mirror-up becomes usual.
b-1: Film advance speed immediately after it starts returns to the normal.
b-2: Halfway film advance speed returns to the normal.

All the above three conditions are necessary to restore the camera mode to S, CL or CH.

Shooting speed

1) When AF lens is attached:

(frame/sec.)

| AF servo mode | Film adv. mode | Shooting speed | Shooting speed in serial control * | Shooting speed in AF lock ** |
|---|---|---|---|---|
| C | CH | 3.3 | (2) | 3.3 |
| | CL | 2 | (1.5) | 2 |
| S | CH | (max 3.3) | (undecided) | 3.3 |
| | CL | (max 2) | (undecided) | 2 |
| M | CH | 3.3 | (2) | 3.3 |
| | CL | 2 | (1.5) | 2 |

2) When Non-AF lens is attached:

(frame/sec.)

| AF servo mode | Film adv. mode | Shooting speed | Shutter speed in serial control * |
|---|---|---|---|
| C | CH | 3.3 | (2) |
| | CL | 2 | (2) |
| S | CH | 3.3 | (2) |
| | CL | 2 | (2) |
| M | CH | 3.3 | (2) |
| | CL | 2 | (2) |

Note: The above figures are the average values when using 24-exposure film with fresh batteries and the shutter speed of 1/125 sec or faster at the ordinary temperature (20°C).

* Theoretical value (when battery power is sufficient and the camera is intentionally let into the serial control mode)

** the value when AF lock button is used

Sequence error

1) Mirror-up time-out
Mirror-up and aperture control are not completed in a fixed period.

If the sequence motor stop SW does not turn on in a fixed period after the release SW turns on, the sequence motor is braked and a warning is given. (LCD display and beeper sound)

If the shutter release button is fully depressed at this stage, the sequence motor rotates to the sequence start position. In this case, the shutter does not operate. If the shutter release button is lightly depressed again, a warning is given.

2) Mirror-down time-out
Mirror-down, aperture reset and shutter charge processes are not completed in a fixed period.

If the sequence motor stop SW does not turn on in a fixed period after the sequence motor is provided with the current, the sequence motor is braked and a warning is given. (LCD display and beeper sound)

If the shutter release button is fully depressed at this stage, the sequence motor ratates to the sequence start position.

In case of "Mirror-down time-out", the film advance motor continues to operate and advance the film regularly even if the sequence motor stops.

3) Opening curtain travel time-out
The opening shutter curtain does not travel in a fixed period.

If the X contact does not turn on in a fixed period after the opening curtain Mg turns off, the sequence operation stops and a warning is given after running of the closing shutter curtain is completed. (LCD display and beeper sound)
(The sequence motor does not rotate.)

If the shutter release button is fully depressed, the sequence motor and the film advance motor operate.

4) Closing curtain travel time-out
The closing shutter curtain does not travel in a fixed period.

If the closing curtain SW does not turn on in a fixed period after the closing shutter curtain Mg turns off, the sequence operation stops and a warning is given after running of the closing shutter curtain is completed. (LCD display and beeper sound)

If the shutter release button is fully depressed, the sequence motor and the film advance motor operate.

5) Misoperation of solenoid.
The sequence motor stop SW does not turn off in a fixed period after the solenoid is proveided with the current.

The sequence operation stops and a warning is given.

If the shutter release button is fully depressed in this state, the sequence operation starts again from providing the solenoid with the current. If the sequence motor stop SW turns off this time, the ordinary sequence operation is executed.

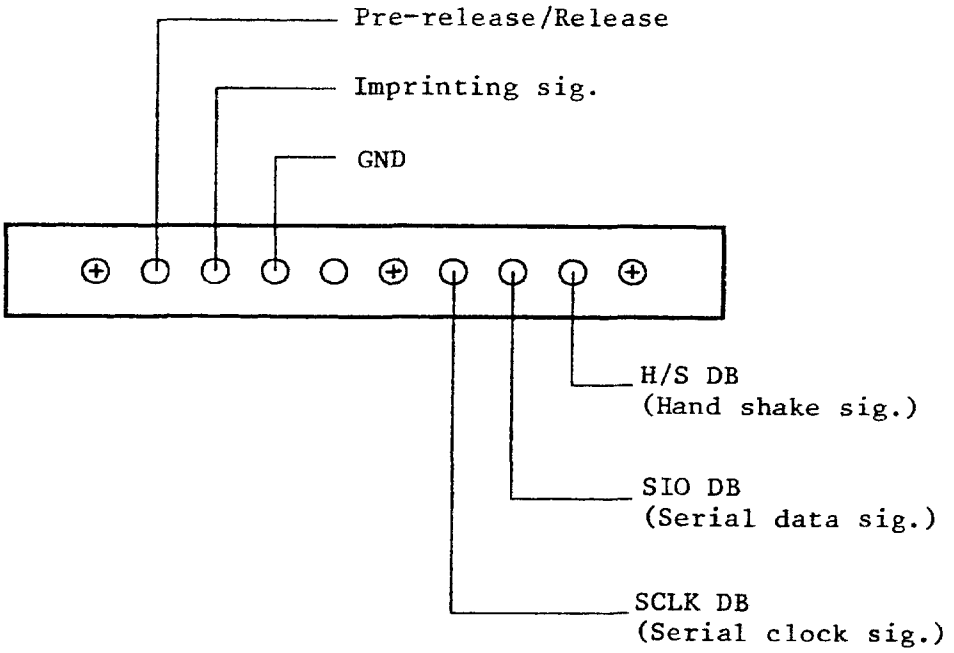
6) In the case of 1) to 5), the display "Err" appears on the LCD panel. Other display is the same as when the main SW is turned on.

Two-button reset (Auto instant reset)

By depressing the MODE and DRIVE buttons simultaneously for a few seconds, the camera modes are set as shown below:

| | |
|---|---|
| Exposure | : PD |
| Film advance | : S |
| Program shift | : No shift |
| Metering | : AMP |
| Multiple exposure | : 1 (Multi exposure is canceled.) |
| Exposure compensation | : +0 (Compensation is canceled.) |

Data back



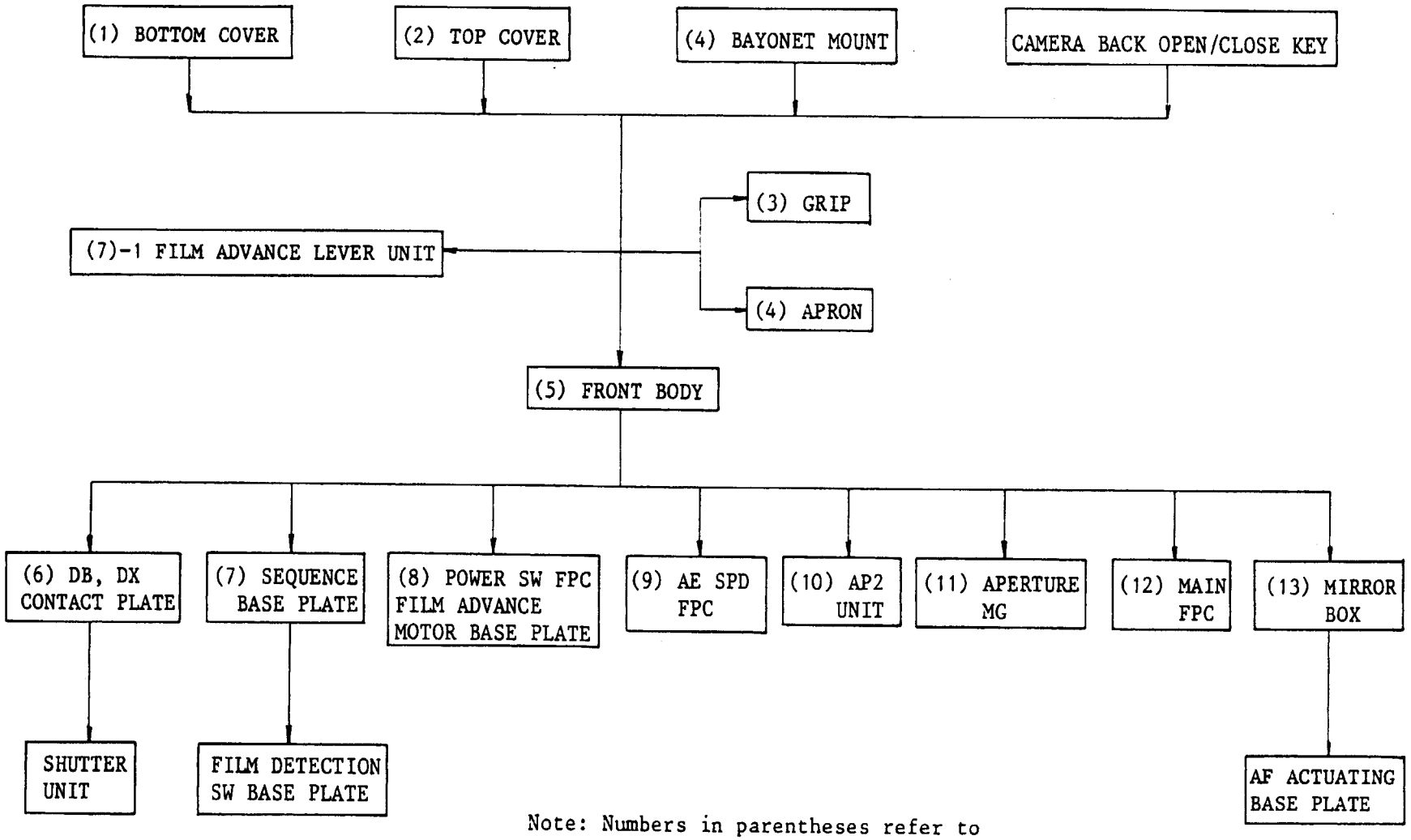

Temperature for use

1) Temperature for normal function:
-10°C - +40°C

2) Temperature for actual shooting:
-20°C - +50°C

3) Temperature for storage:
-30°C - +70°C

DISASSEMBLING OUTLINE

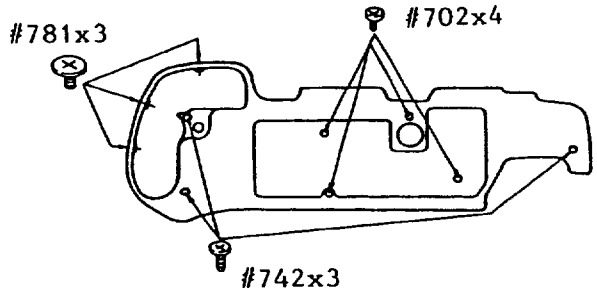



Note: Numbers in parentheses refer to disassembling procedures.

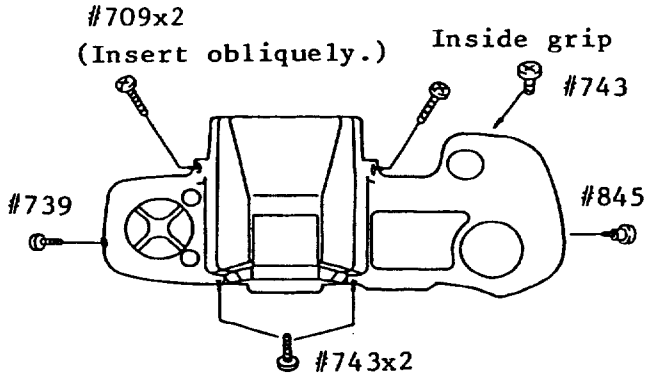
2. Disassembling procedures

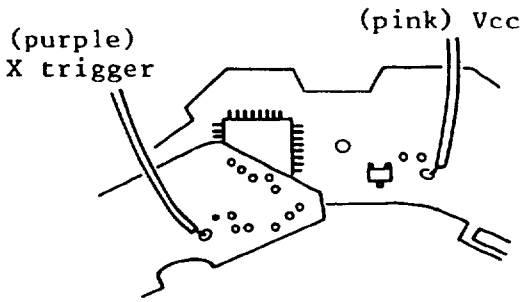
Note: 1) Disassembling should be started after batteries, external rubber parts (grip, film advance side, rewind side) and camera back are removed.
2) Be sure to learn how lead wires are arranged and where screws are mounted.
3) As ICs are easily affected by the static electricity, be sure to ground the camera.

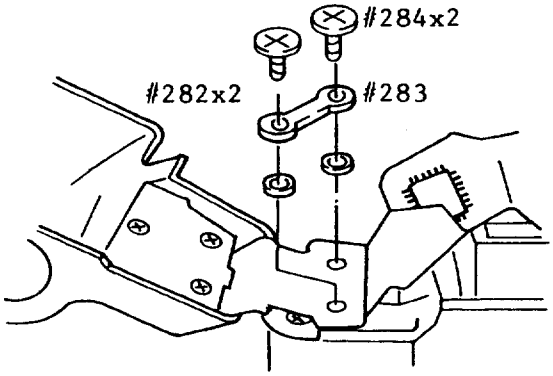
(1) BOTTOM COVER



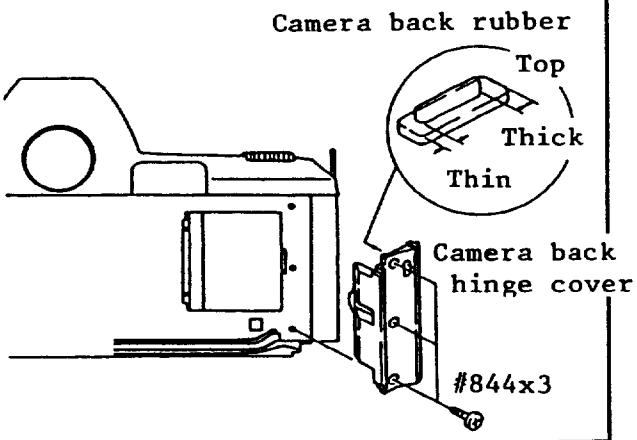

(2) TOP COVER

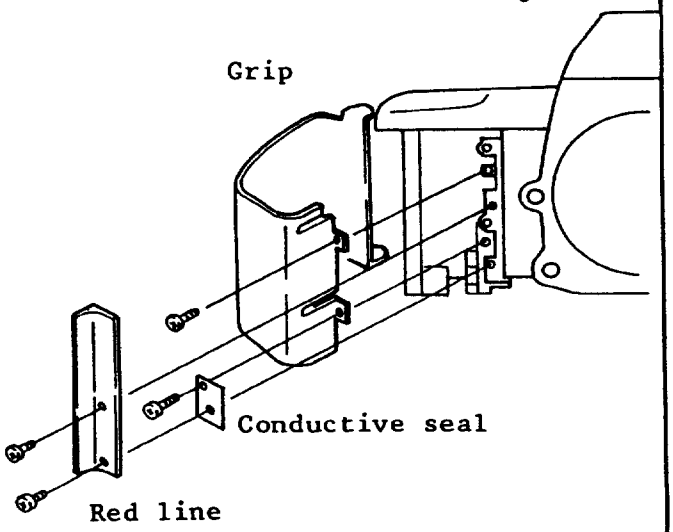


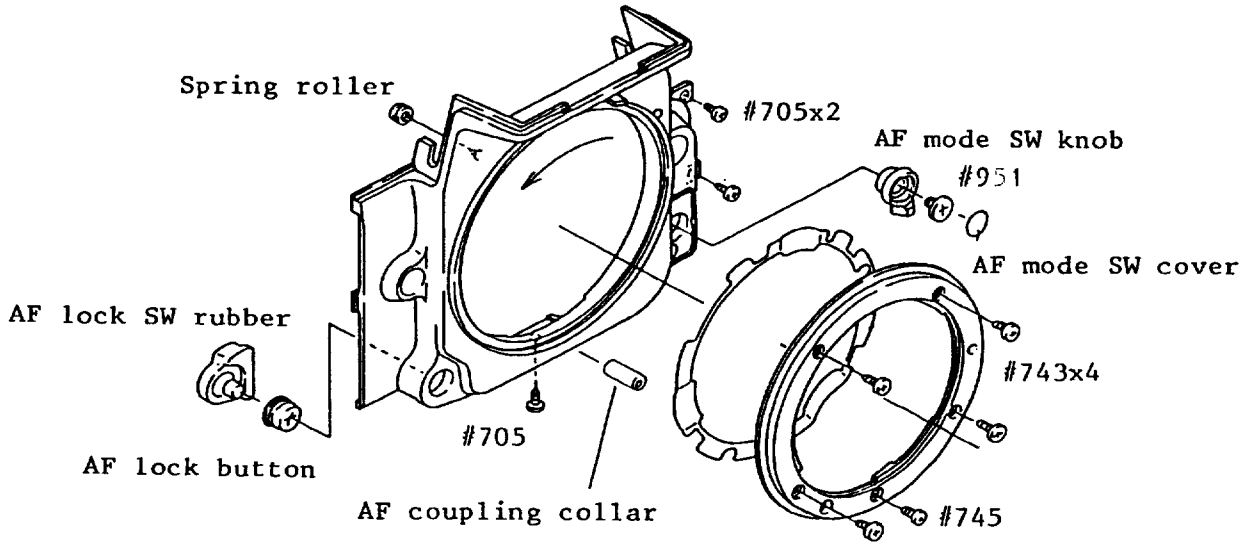

(3) GRIP



(4) BAYONET MOUNT

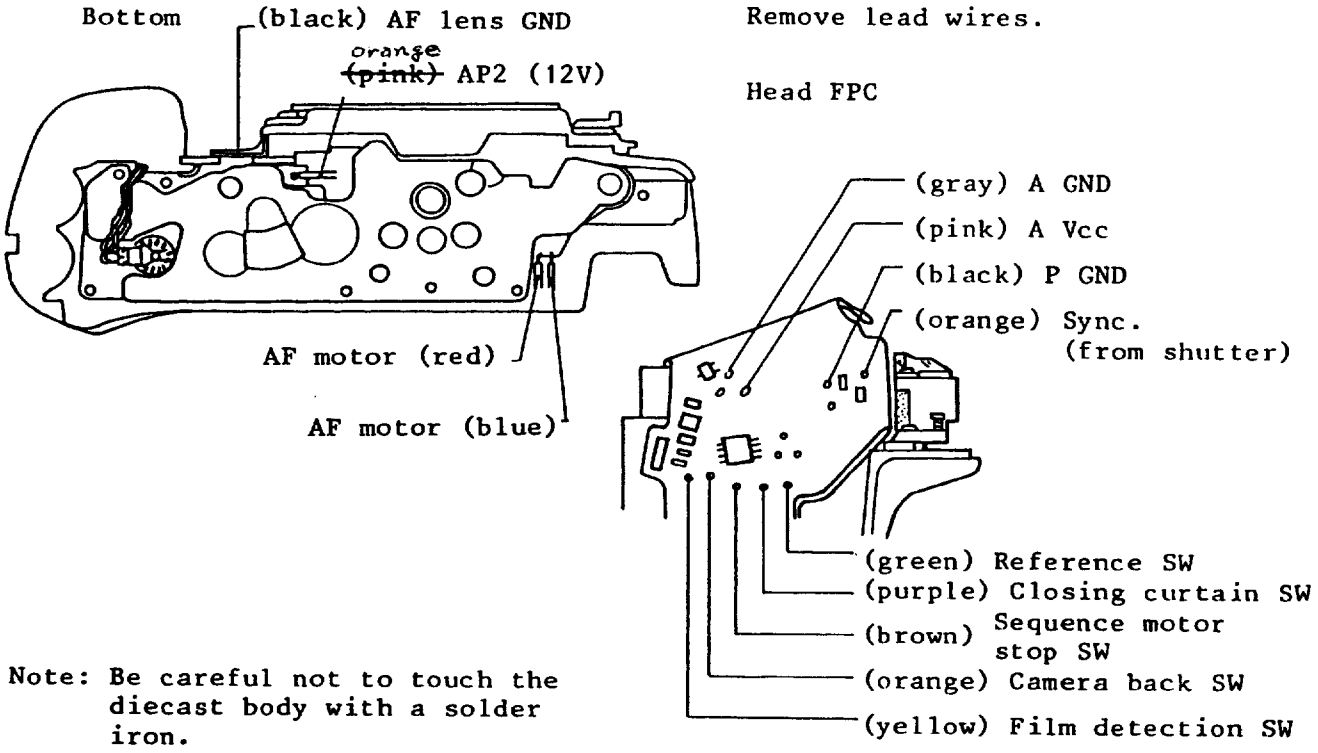
Take off aperture coupling ring and apron in combination. (When installing, mount them together while turning aperture coupling ring by 20°.)



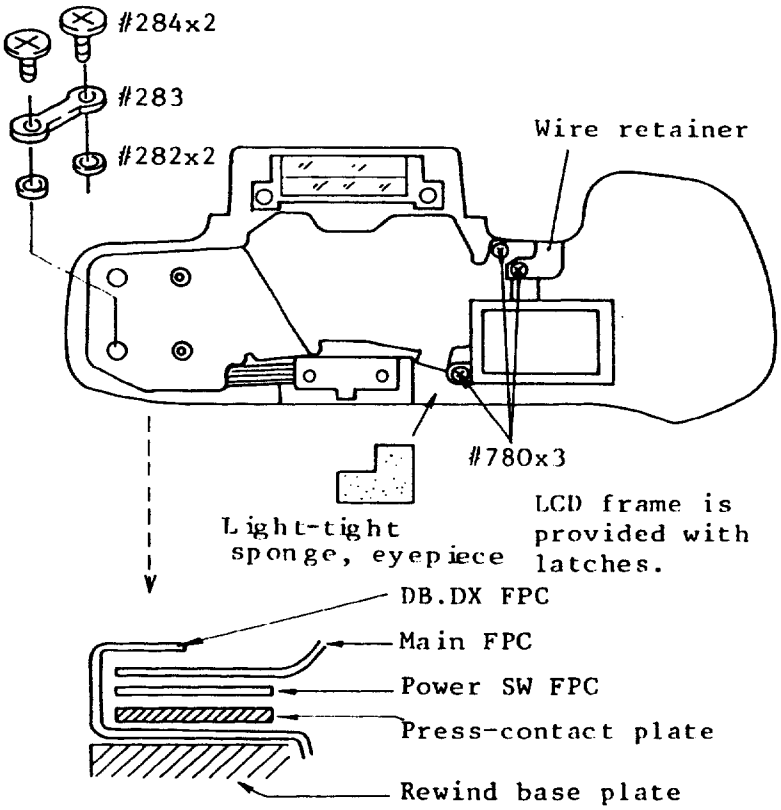

(5) FRONT BODY

Disassembling

Remove lead wires.




Note: Be careful not to touch the diecast body with a solder iron.




Disassembling

FPC press-contact

↓

#284x2
#283
#282x2

External LCD

↓

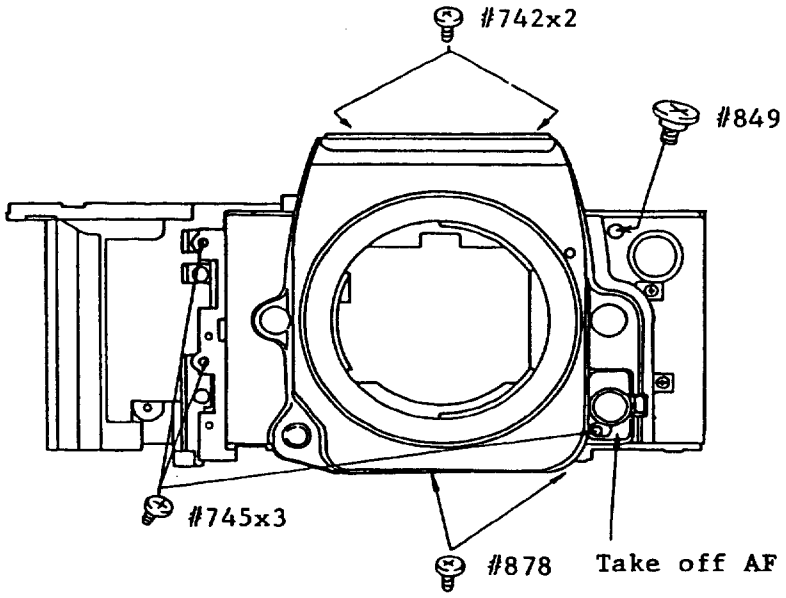
#780x3
Wire retainer

↓

Front body screw (x8)

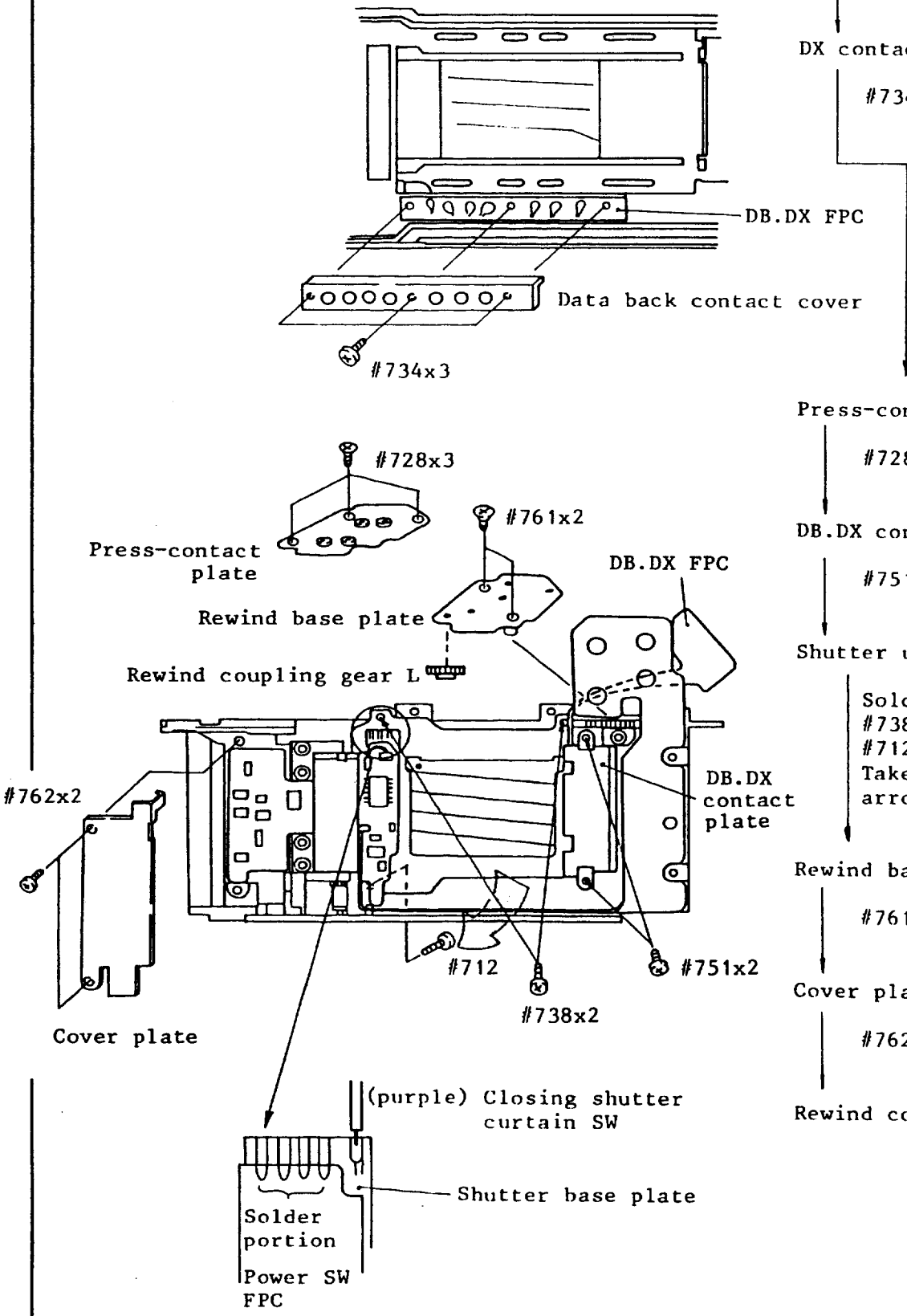
↓

Take off front body.



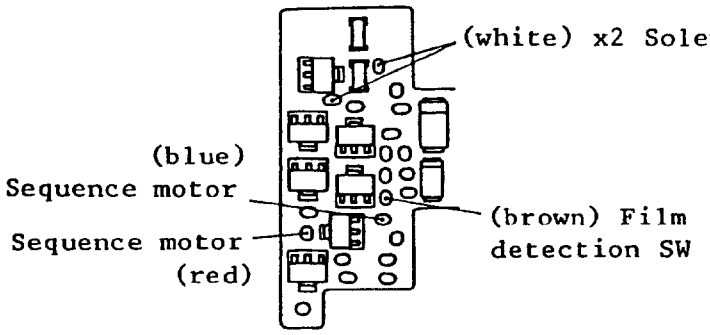

Take off AF mode plate.

(6) DB.DX CONTACT PLATE, SHUTTER UNIT




Note: Be careful not to touch the sequence base plate with a solder iron.

(7) SEQUENCE BASE PLATE




Disassembling

Remove lead wires.

Sequence base plate

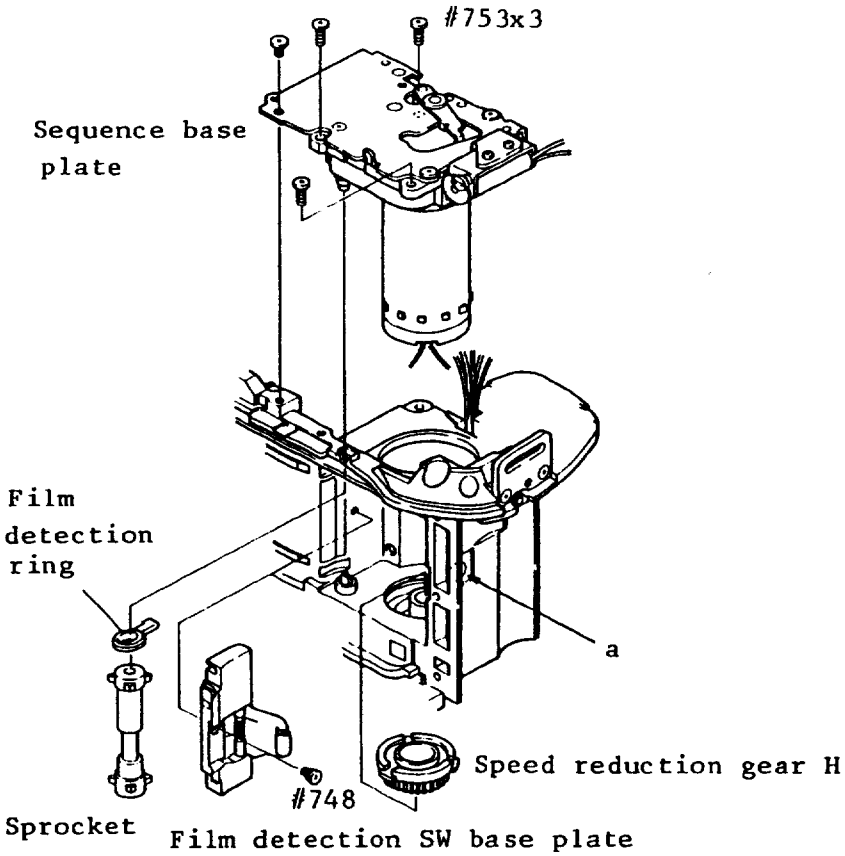
#841x1
#753x3

Film detection ring

Sprocket

Speed reduction gear H

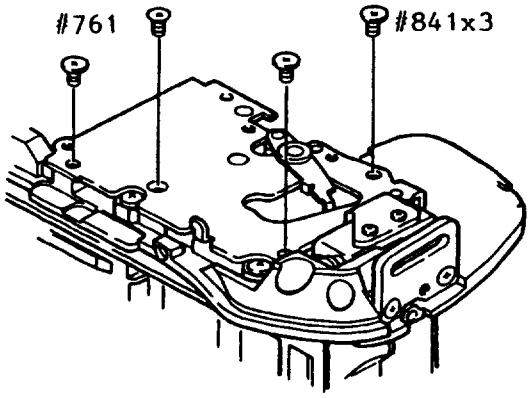
Film detection SW base plate
Remove screw #748x1 from portion "a".



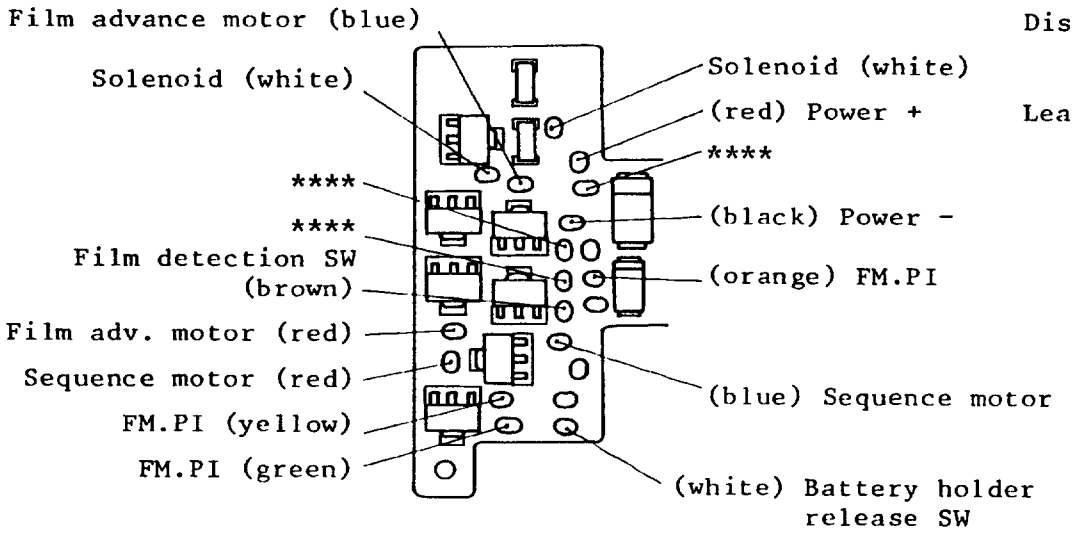

(7)-1 FILM ADVANCE LEVER UNIT

** Film advance lever unit can be taken off without removing front body.

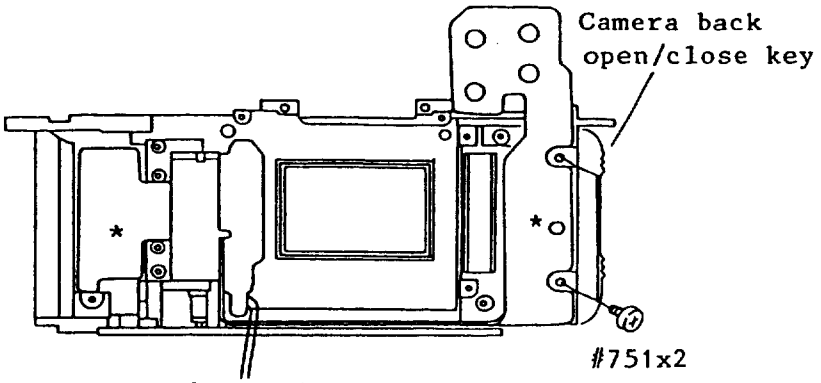
Solenoid, sequence motor stop SW and gears can be replaced.



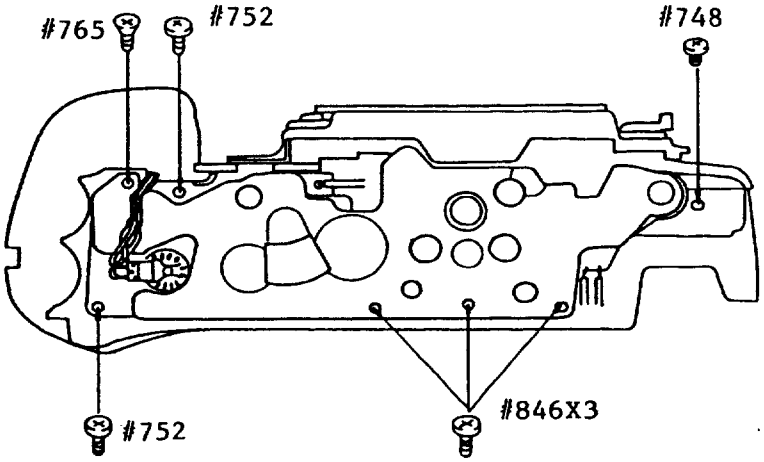
## (8) POWER SW FPC, FILM ADVANCE MOTOR BASE PLATE




FM.PI: Film advance photo interrupter




(orange) Camera back SW
Dislocate from inductor support plate.




Disassembling

↓

Lead wires

↓

Camera back open/close key

↓ #751x2

Power SW FPC
Peel off two pieces of double sided adhesive tape at the portions with * mark.

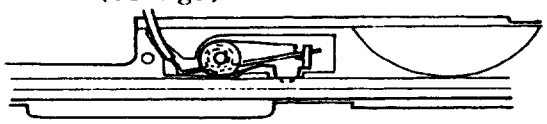
↓

Power SW FPC
Film advance motor base plate unit

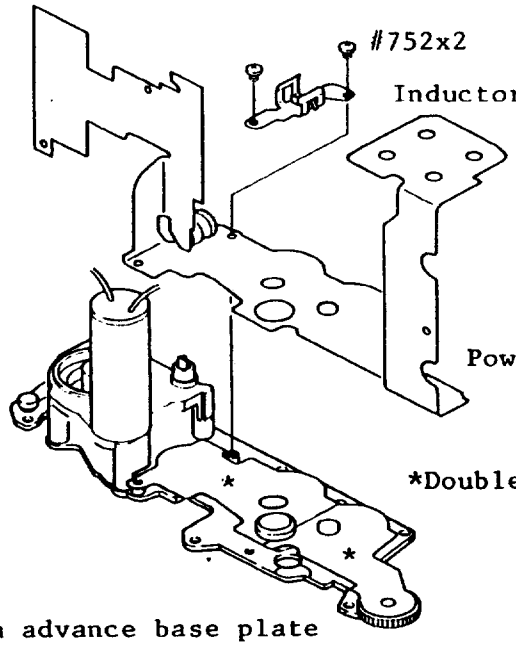
↓ #752x2
#765
#846x3
#748

Camera back SW

(orange)

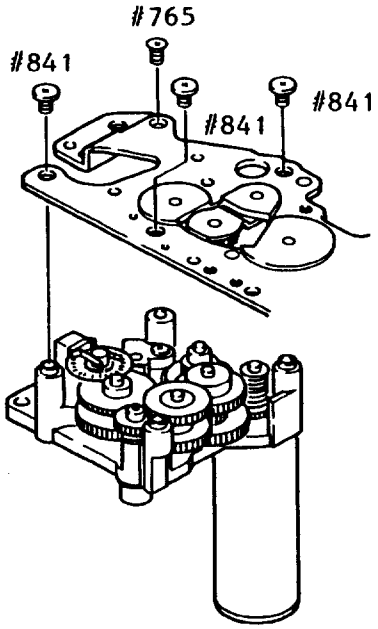


Divide power SW FPC from film advance motor base plate.




Remove inductor support plate and take off power SW FPC.

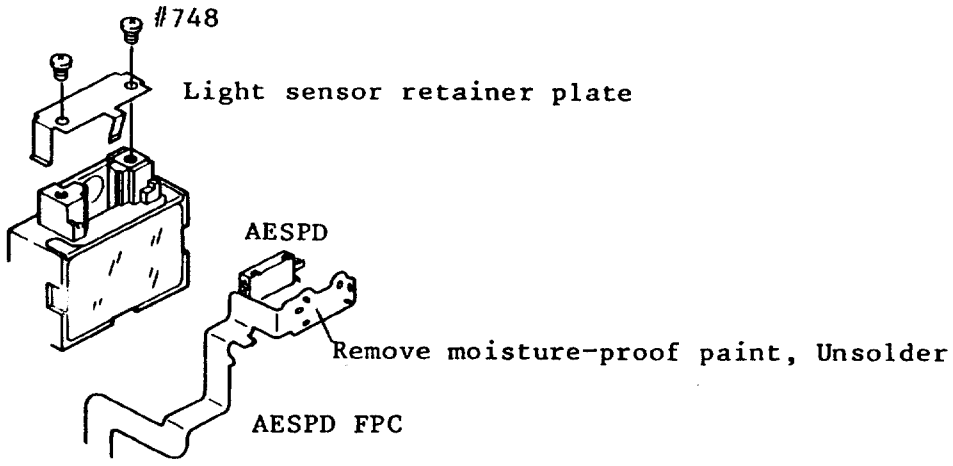
Peel off double-sided adhesive tape at the portion with * mark.



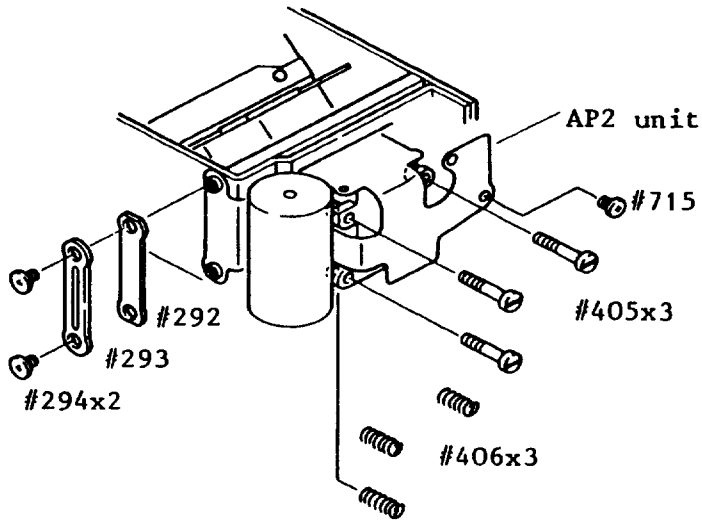

Divide bottom base plate gears from film advance motor base plate.

#765
#841x3

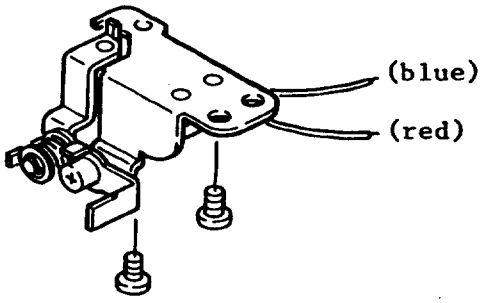
(9) AESPD FPC




(10) AP2 UNIT




(11) APERTURE MG

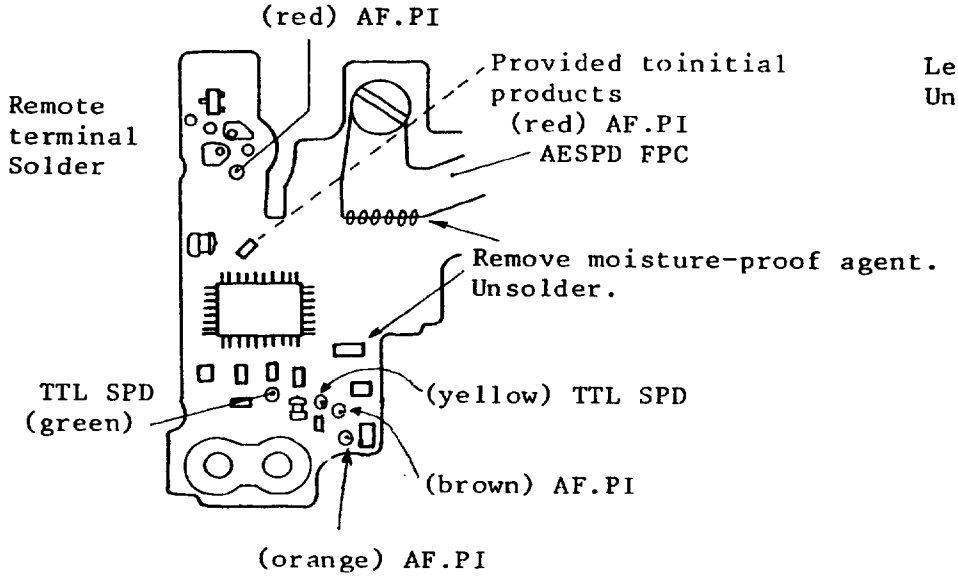



Remove aperture magnet wires (red & blue).

(12) MAIN FPC

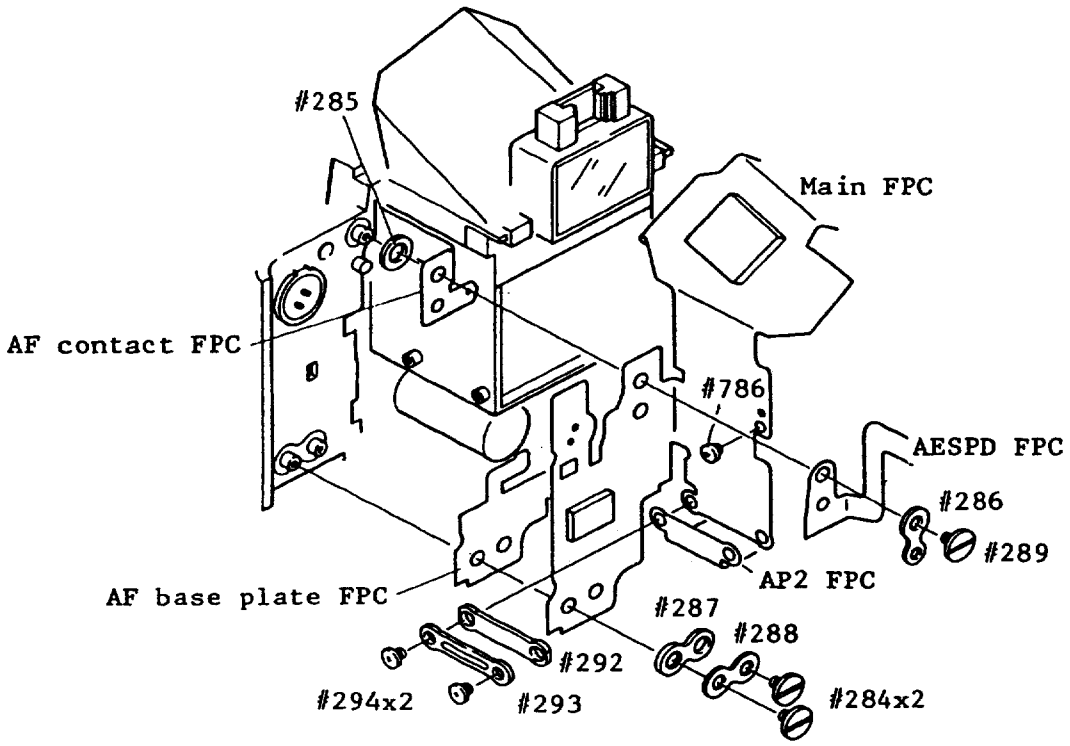
Disassembling

Lead wires
Unsolder

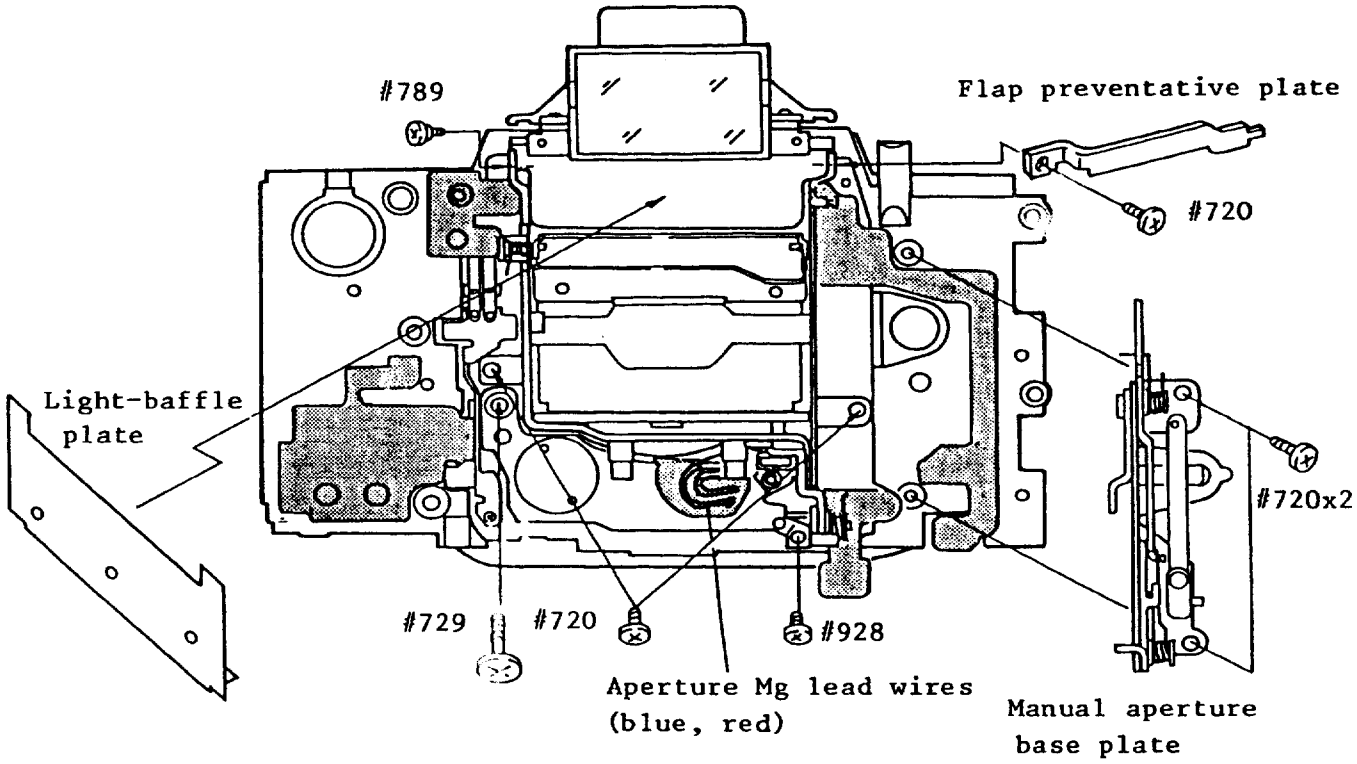


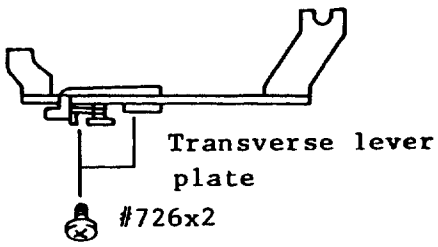

AF.PI: AF photo interrupter

Press-contact



## (13) MIRROR BOX/AF ACTUATING BASE PLATE




Disassembling

* If you wish to disassemble these parts without taking off main FPC, be sure to remove solder of lead wires, press-contact portions and AP2 on the main FPC at the film rewind side.

Manual aperture base plate

↓ Unsolder switches
#720x2

Light-baffle plate

↓

Mirror box

↓ Aperture Mg lead wire (red, blue)
#720x3
Flap preventative plate
#789

↓

Transverse lever plate

↓ #726x2

AF actuating base plate

Peel off FPC.
AF lock SW

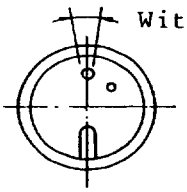
Unsolder.
AF mode SW
F-Fo base plate
#729
#928

DISASSEMBLING & ADJUSTMENT PROCEDURES (FRONT BODY)

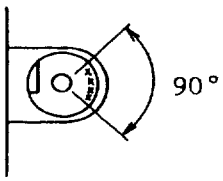
SMALL PARTS ON FRONT BODY ..... A2
↓
AF ACTUATING BAES PLATE UNIT ..... A3
↓
Inspect operation of AF actuating base plate unit.
↓
MOUNT AF ACTUATING BASE PLATE UNIT ON FRONT BODY. ..... A4
↓
How to mount
AF A/M SW
↓
TRANSVERSE LEVER UNIT, F-Fo BASE PLATE ..... A5
↓
MIRROR BOX ..... A6
↓
Assemble base plate I.
Inspect base plate I.
Attach main mirror and sub mirror.
Assemble base plate I, base plate L and mirror unit.
Aperture Mg
Install aperture photo interrupter.
↓
MOUNT MIRROR BOX ON FRONT BODY. ..... A10
↓
Adjust aperture Mg latch lever and manual aperture
stop-down base plate.
↓
PRISM, MIRROR BOX BOTTOM PLATE ..... A11
↓
ADJUST AF COUPLING SHAFT. ..... A12
↓
ADJUST APERTURE LEVER. ..... A12
↓
ADJUST ON/OFF POSITION OF DEPTH-OF-FIELD PREVIEW SW. ..... A13
↓
ADJUST MAIN MIRROR AND SUB MIRROR ANGLE (45°). ..... A14
↓
AP2 UNIT ..... A15
↓
AESPD FPC UNIT ..... A15
↓
MAIN FPC UNIT ..... A16
↓
HOW TO REPLACE APERTURE PHOTO INTERRUPTER
WITH FRONT BODY ATTACHED ..... A17

## SMALL PARTS ON FRONT BODY

Installation of remote connector

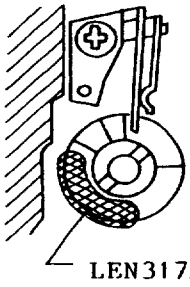



Lubrication at lens release button

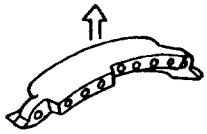



Apply inside.
LEN317A 10%
Freon 90%

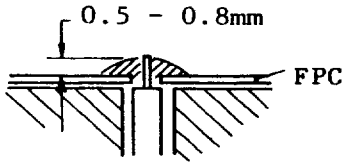
Lubrication at focus mode SW cam

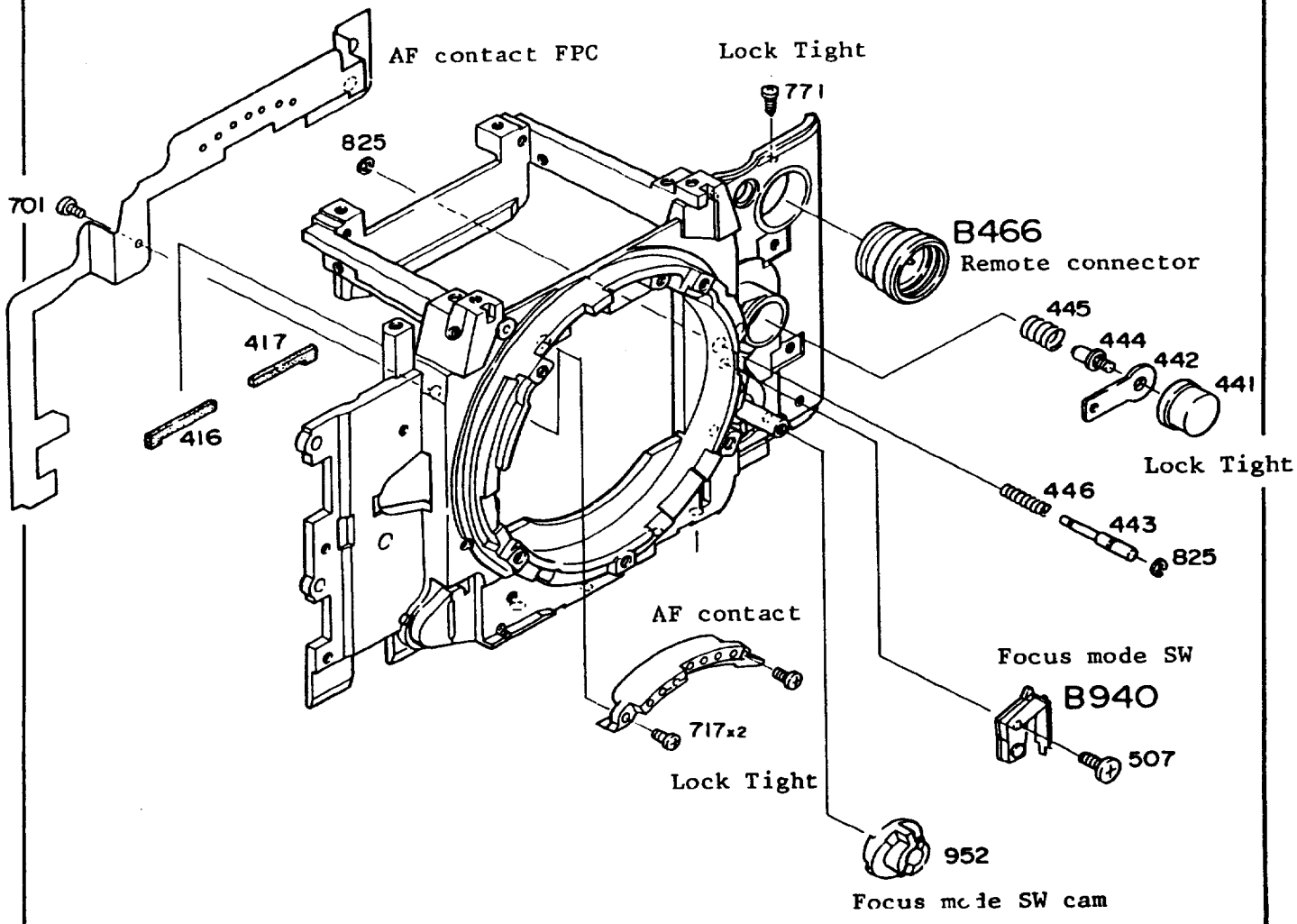



Backlash of AF contact

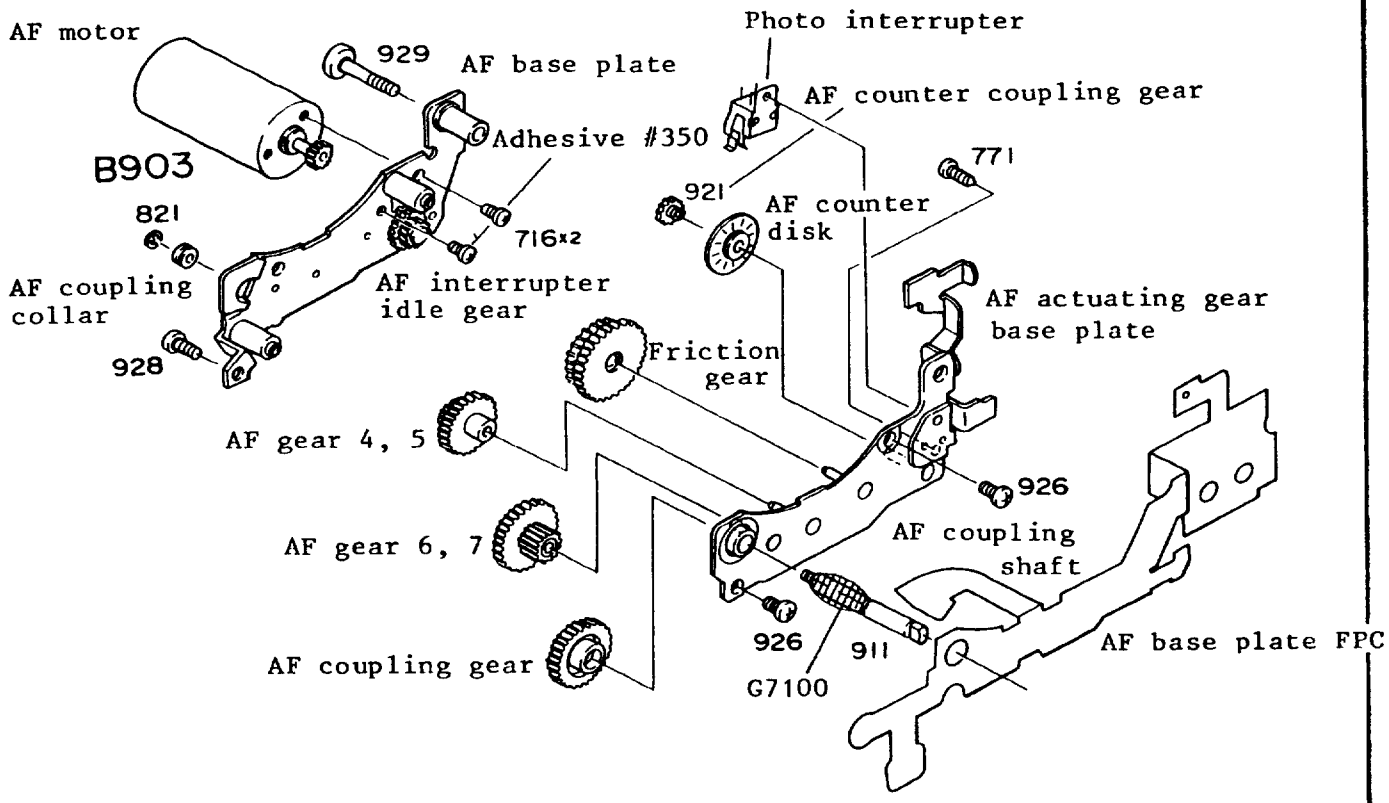



Soldering on AF contact FPC



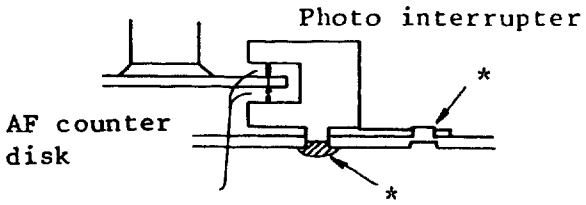



## AF ACTUATING BASE PLATE UNIT




* Apply G7100 on the teeth of each gear.
* Apply L2113 on each gear shaft.

Mount photo interrupter.




Apply Crazy Glue #210 to * portion.

AF counter disk

Installation:

AF motor

AF counter disk/AF counter coupling gear

↓

Friction gear

↓

AF gear 4, 5

↓

AF coupling gear unit

↓

AF coupling gear unit

AF coupling shaft
AF coupling collar
AF coupling gear

↓

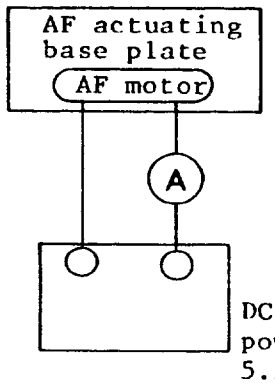
AF gear 6, 7

↓

AF base plate

↓

AF base plate FPC




Inspection:

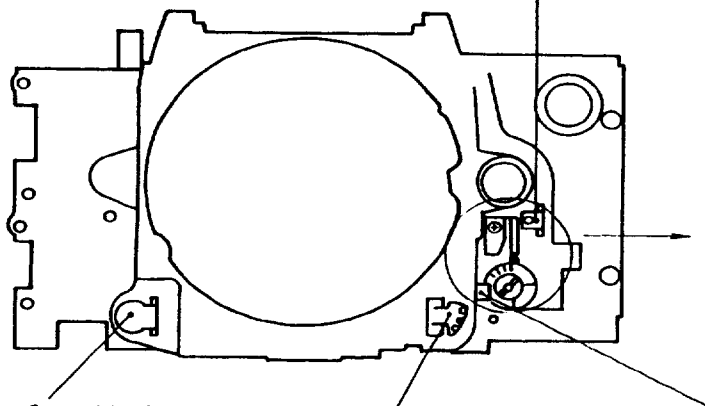
Inspect operation of AF actuating base plate unit.

Gears are to rotate smoothly.

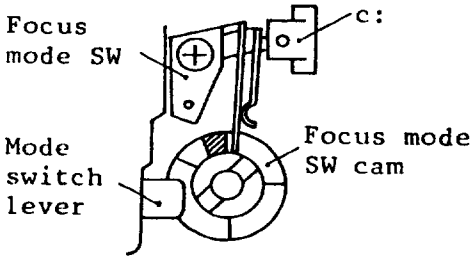
Standard - 80mA or less

## MOUNT AF ACTUATING BASE PLATE ON FRONT BODY.

Front view



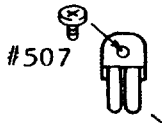
c: for focus mode SW
Solder on focus mode SW.



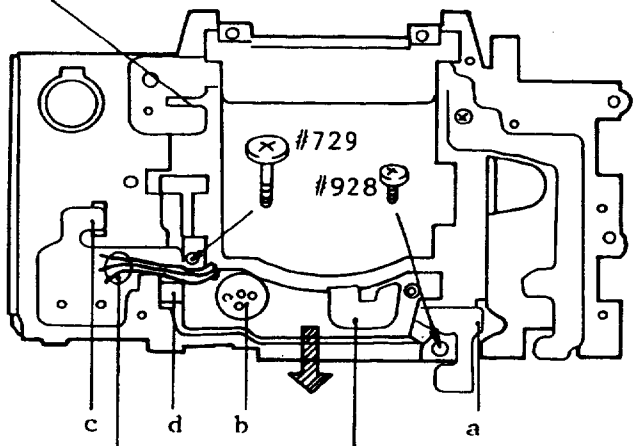

a: for AF lock SW (Attach with double-sided adhesive tape.)

b: for F-Fo base plate

d: Put mode switch lever on focus mode SW cam.




Rear view




f: Pull out AF.PI wires to the film advance side.

e: for aperture Mg (Attach with double-sided adhesive tape.)

Installation:

How to mount

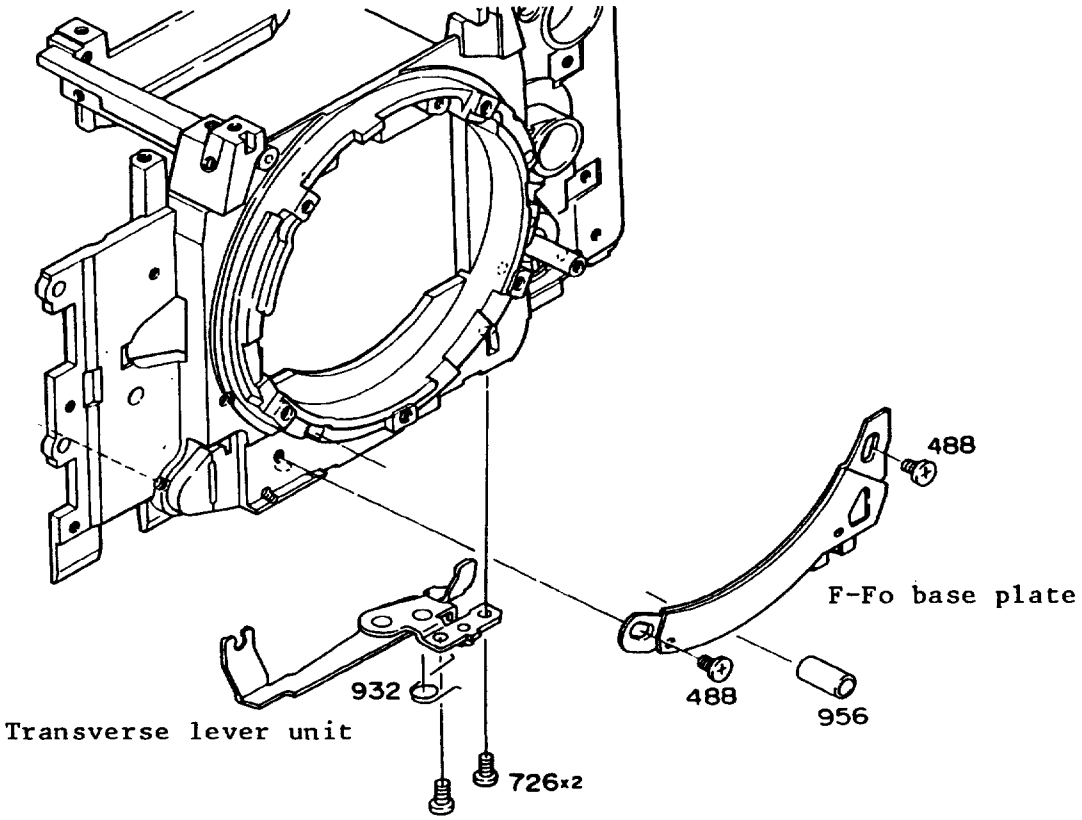
Put out the portions "a" - "c" (AF base plate FPC) and "d" (mode switch lever) to the front.

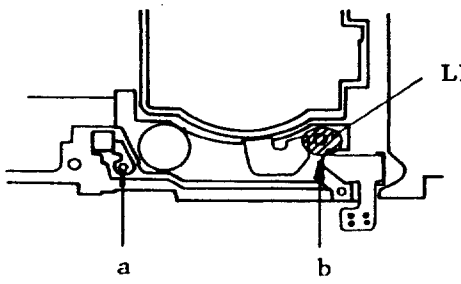
Fix AF actuating base plate with screws #729 and #928 while holding the base plate downward.

Execute the procedures "a" - "f".

AF A/M SW
#507x1
Solder the switch on AF base plate FPC.

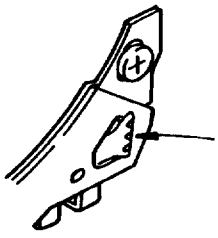
## TRANSVERSE LEVER UNIT, F-Fo BASE PLATE



Transverse lever unit

Spring on transverse lever unit



Solder
F-Fo base plate

Installation:

Transverse lever unit

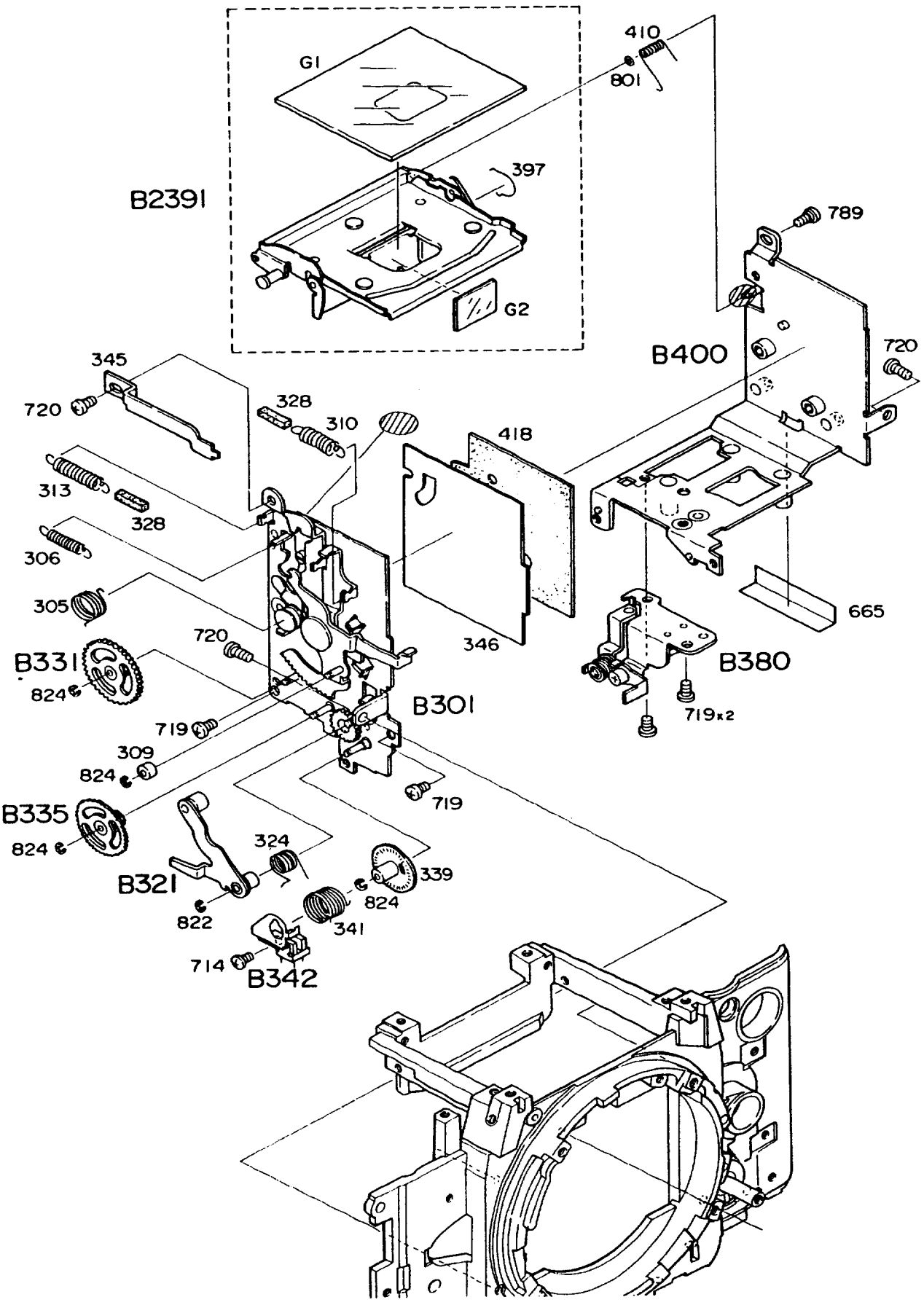
a: Insert under vertical AF lever.
b: Insert to the groove of AF coupling collar.
#726x2

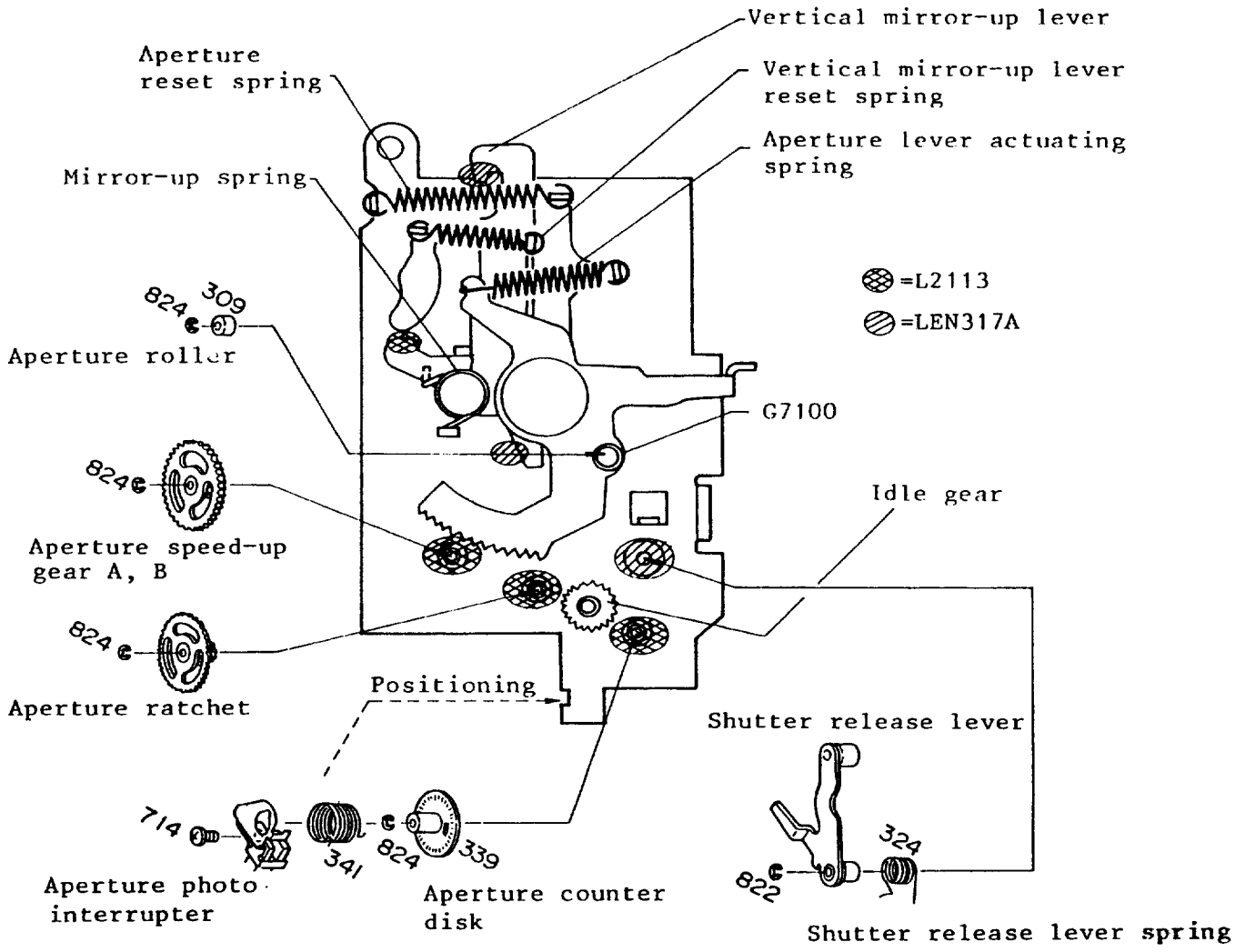
F-Fo base plate

#488x2
Soldering

MIRROR BOX

LEN317A






Installation:

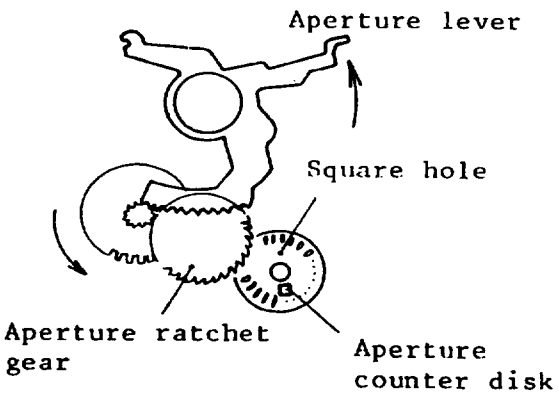
Assemble base plate I.

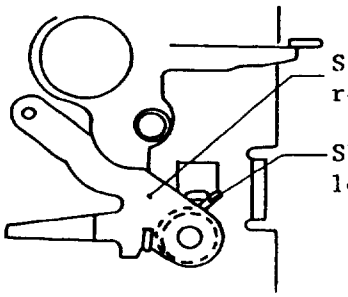
Aperture speed-up gear A, B #824

Aperture counter disk/
Aperture ratchet/#824

Turn aperture lever in the arrow direction up to the limit. Install ratchet gear when the square hole comes to the bottom.

Turn aperture speed-up gear A, B counterclockwise to set the square hole downmost.



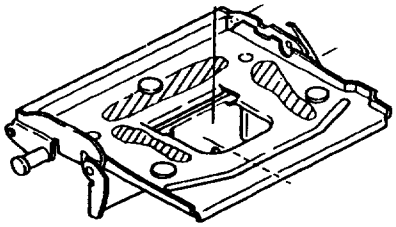



Shutter release lever

Inspection:

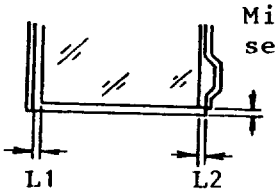
Move vertical mirror-up lever and inspect each gear.
Each gear should move smoothly.

Attach main mirror and sub mirror.



Main mirror

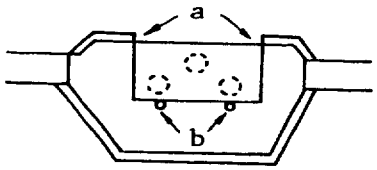
1. Apply KE347 to three portions.




Mirror should be securely attached.

L1=L2

2. Set the mirror as shown in the figure.

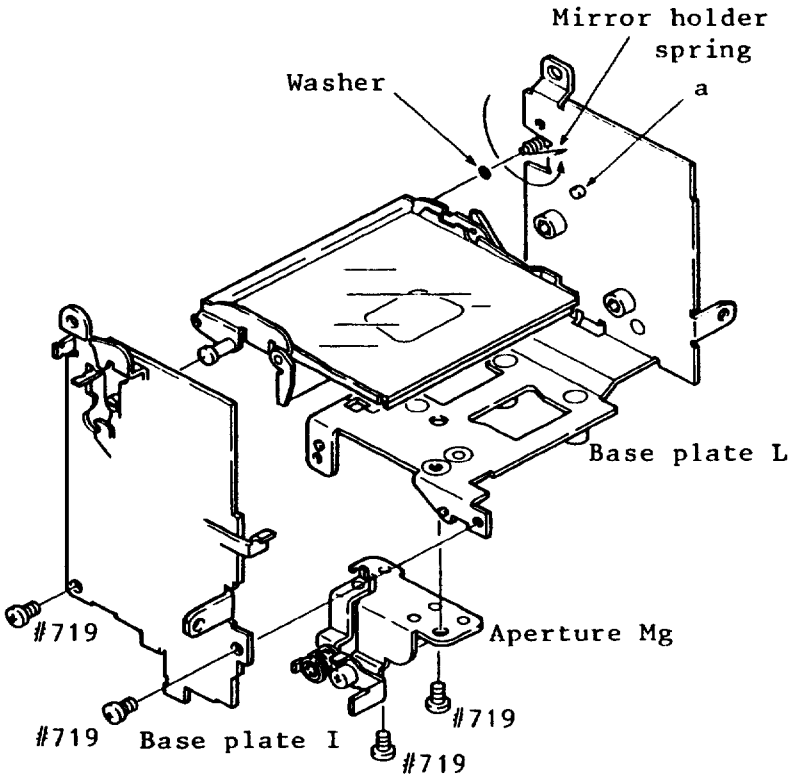



Sub mirror

1. Apply KE347 to three portions. (One drop each)

2. Align the corners of the mirror with the portion "a", while pushing it to touch the portion "b".

Position of sub mirror




Assemble base plate I, base plate L and mirror unit.

Mount base plate I on base plate L with screws #719x2.

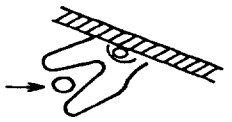
Set mirror holder spring on mirror shaft of base plate L and turn it in the arrow direction.

Washer

Widen mirror box slightly, and fix mirror unit on base plate I, then on base plate L.

Set mirror holder spring.

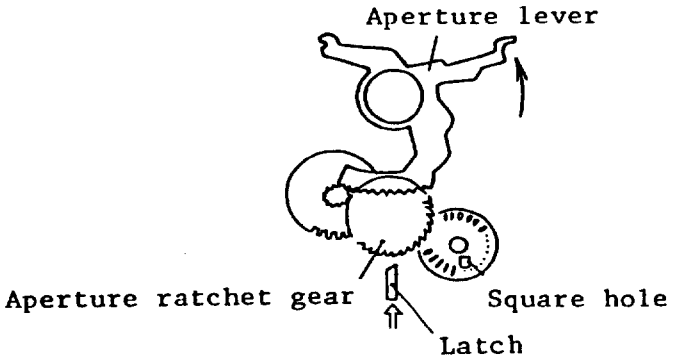
Main mirror



Insert the pin "a" into the prong.

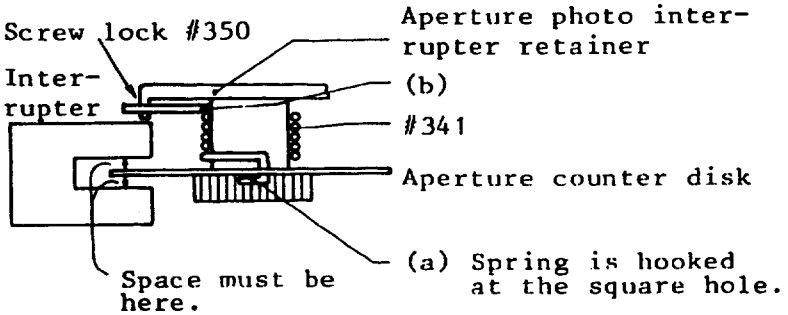
Aperture Mg

#719x2

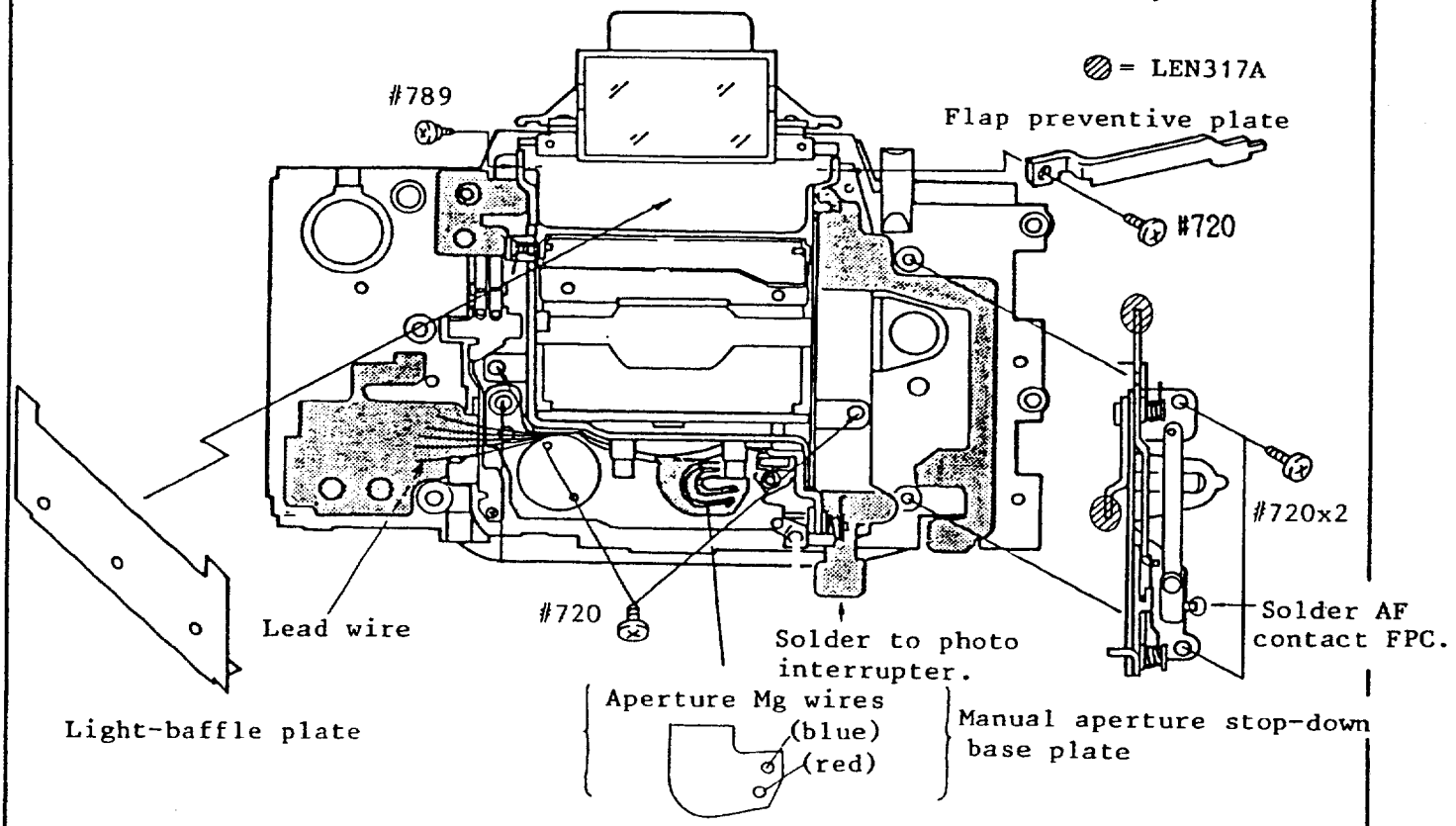



Install aperture photo interrupter

1. Turn aperture lever in the arrow direction up to the limit.
2. Set mg latch to aperture ratchet gear.
3. Hook the spring #341 (portion "a") at the square hole.
4. Install photo interrupter. #714x1
5. Hook one end of spring #341 (portion "b") on aperture photo interrupter.
6. Release the latch of aperture Mg.



(Refer to Disassembling section for the installation of apron and bayonet mount.)




Installation:

Mirror box

↓ Flap preventive plate
#720x3
#789

Light-baffle plate

↓

Manual aperture stop-down base plate

↓ #720x2
Solder on AF contact FPC.

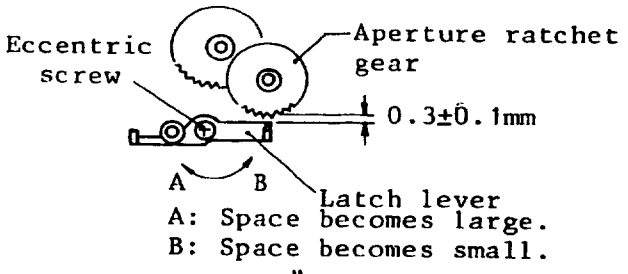
Solder aperture Mg wires (blue, red).

↓

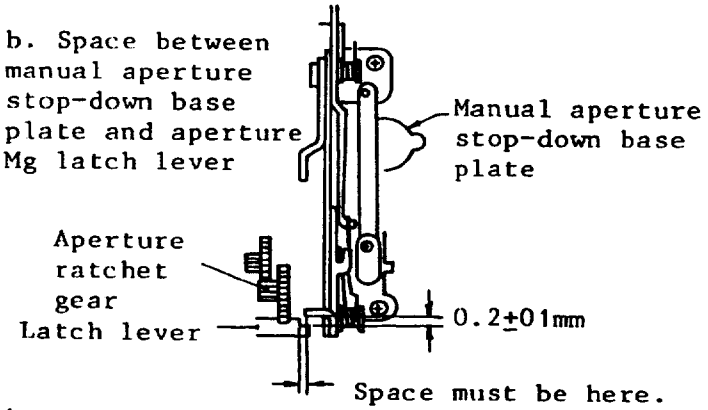
Solder AF base plate FPC to aperture photo interrupter.

Adjustment:

a. Space between aperture ratchet gear and aperture Mg latch lever (when aperture ratchet gear is in a free state)

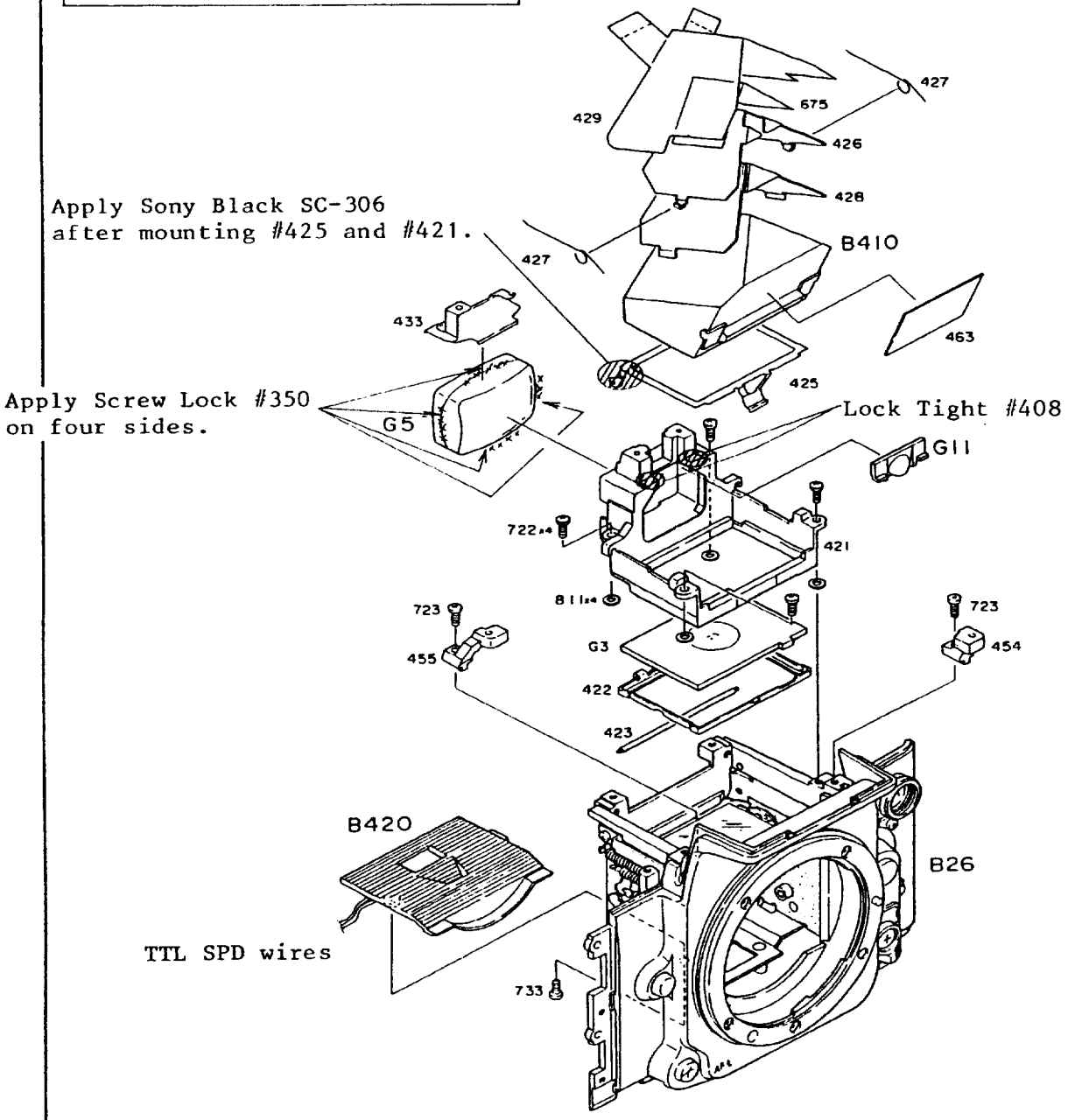



b. Space between manual aperture stop-down base plate and aperture Mg latch lever

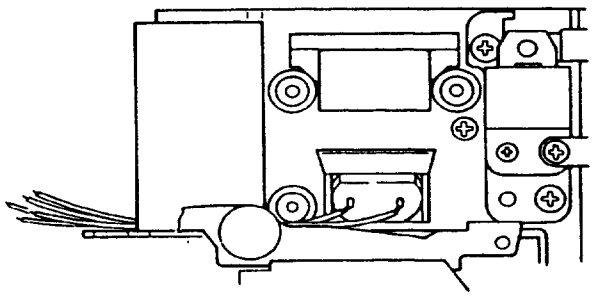



* aperture ratchet gear is engaged with latch lever.

## PRISM, MIRROR BOX BOTTOM PLATE



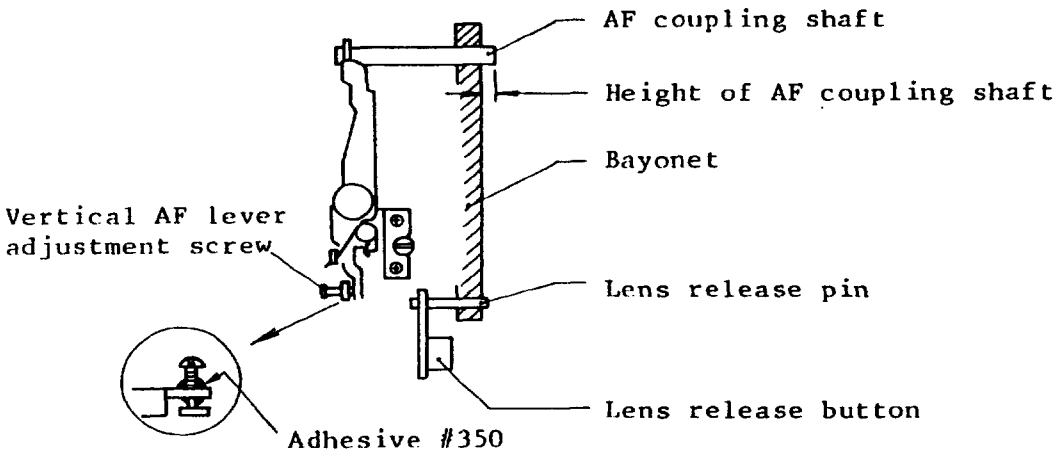

Arrange lead wires at the bottom of front body.



## ADJUST AF COUPLING SHAFT.

Adjustment: Adjust AF coupling shaft with vertical AF lever adjustment screw to protrude by 1.6±0.1mm from the bayonet surface. (Lens release button should be free.)

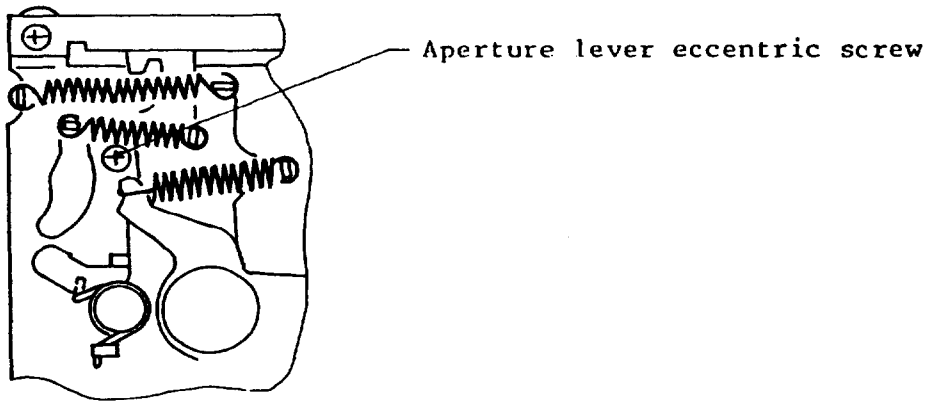
Standard: 1.6±0.1mm



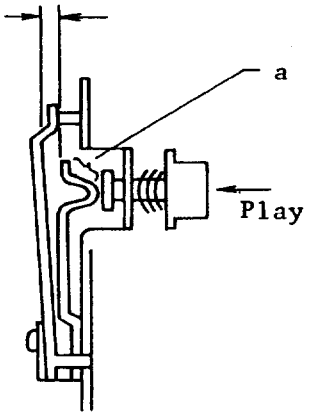

## ADJUST APERTURE LEVER.

Adjustment: Adjust by rotating aperture lever eccentric screw. Use J18004.

Standard: $3.4^{+0.1}_{-0}$mm



## ADJUST ON/OFF POSITION OF DEPTH-OF-FIELD PREVIEW SW




**The switch should not be turned on**
1. **when the depth-of-field preview button is depressed as much as the stroke of play with no lens attached to the lens mount. (The stroke of play should be 0.2mm - 0.8mm)**
2. Attach 50/1.8 lens to the camera and set the aperture to F4.
The switch should be turned on when the depth-of-field preview button is depressed as much as the stoke of play.

Note: The height of aperture lever ($3.4^{+0.01}_{-0}$ mm) should have already been adjusted.

Adjustment: Bend the portion "a" of the switch to adjust.

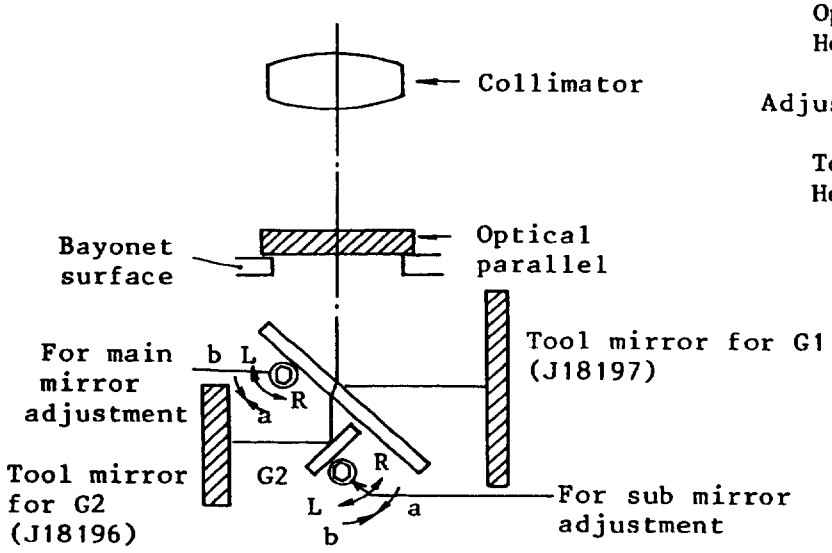
## ADJUST MAIN MIRRROR & SUB MIRROR ANGLE (45°).

Adjustment of main mirror (G1)

Tool mirror for G1 (J18197)
Optical parallel
Hexagonal wrench

Adjustment of sub mirror (G2)

Tool mirror for G2 (J18196)
Hexagonal wrench



Standard:

| | G1 | G2 |
|---|---|---|
| Discrepancy (right/left) | ±20° | ±30° |
| Discrepancy (up/down) | ±5' | ±10' |
| Distortion | ±8' | ±8' |

Table 1

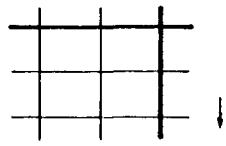
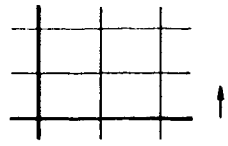
| Reflecting image | Up | Down |
|---|---|---|
| Optical<br>Mirror |  |  |
| Adjustment<br><br>Set the mirror reflecting image to the optical reflectign image. | Turn the eccentric pin to the left. Mirror turns in the direction "a". | Turn the eccentric pin to the right. Mirror turns in the direction "b". |

Table 2

Adjustment:

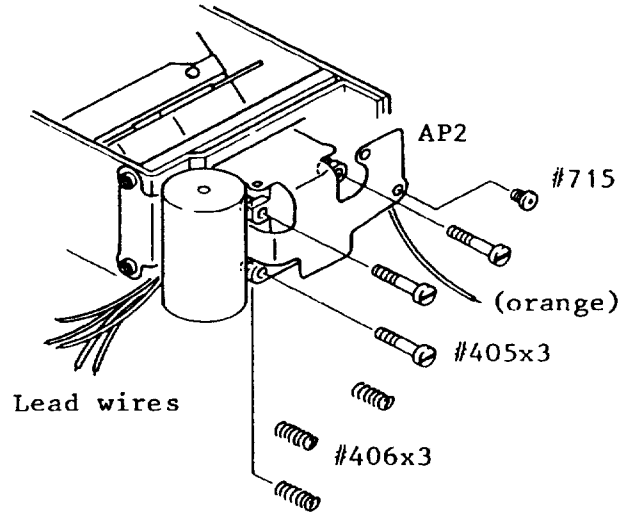
1. Discrepancy (up/down)
   Turn each eccentric pin with a hexagonal wrench to adjust.
   Refer to Table 2.

2. Discrepancy (right/left)

   a. Unfasten the screws (#789, #720) attaching to the mirror box (refer to page A10), and fasten the screws again after moving the mirror box in a right left direction.
   b. Check discrepancy (righ/left) again. Repeat the same procedure "a" and "b" if it is outside the standard.

Note: When the adjustment is completed, move the mirror 2 to 3 times to check its accuracy.

## AP2 UNIT




Installation:

AP2 spring #406x3

↓

AP2

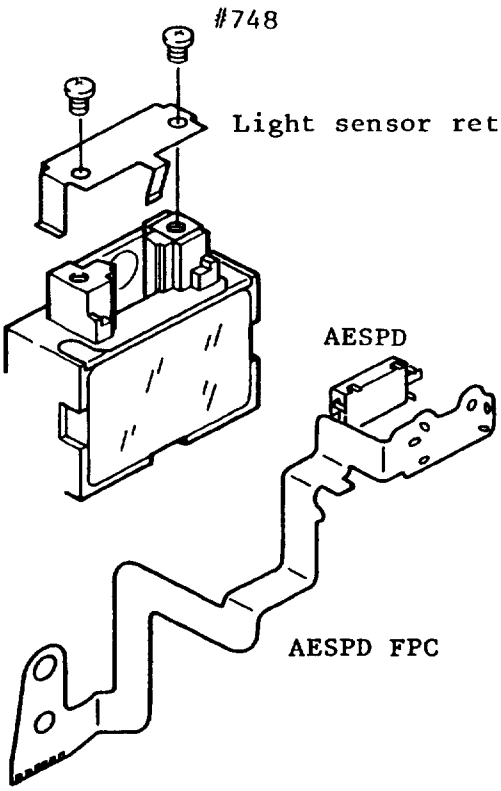
Pass FPC press-contact portion between AF motor and mirror box.

↓

AP2 screw #405x3

Fasten the screws temporarily. ( 2 turns)

## AESPD FPC UNIT

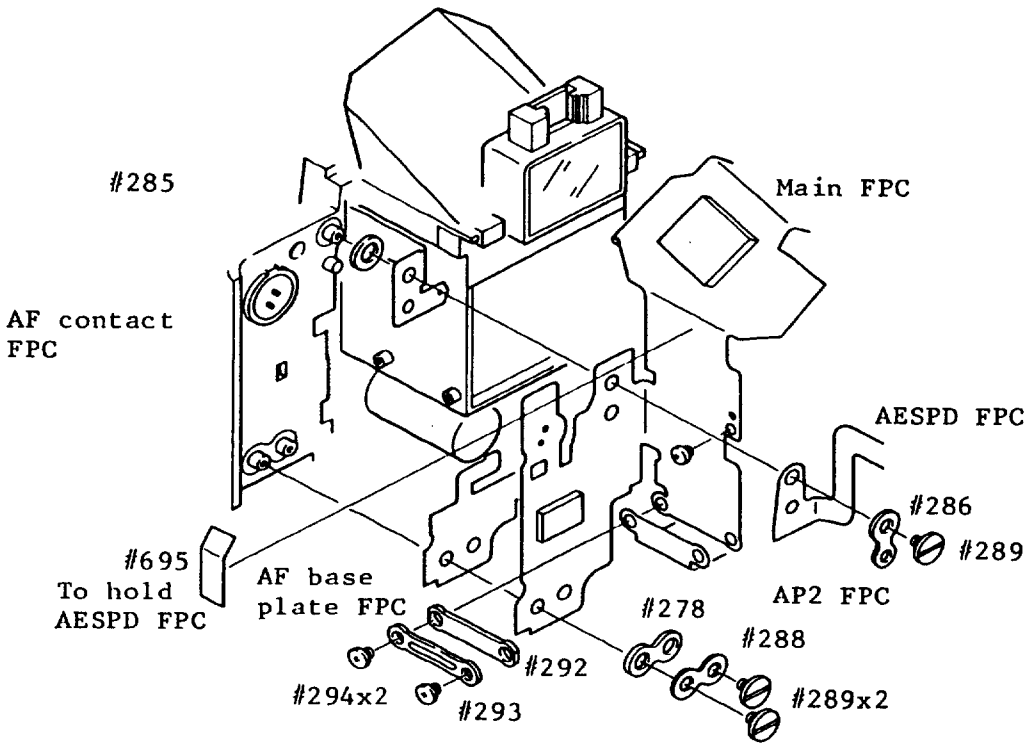



Apply moisture-proof agent after soldering

MAIN FPC UNIT

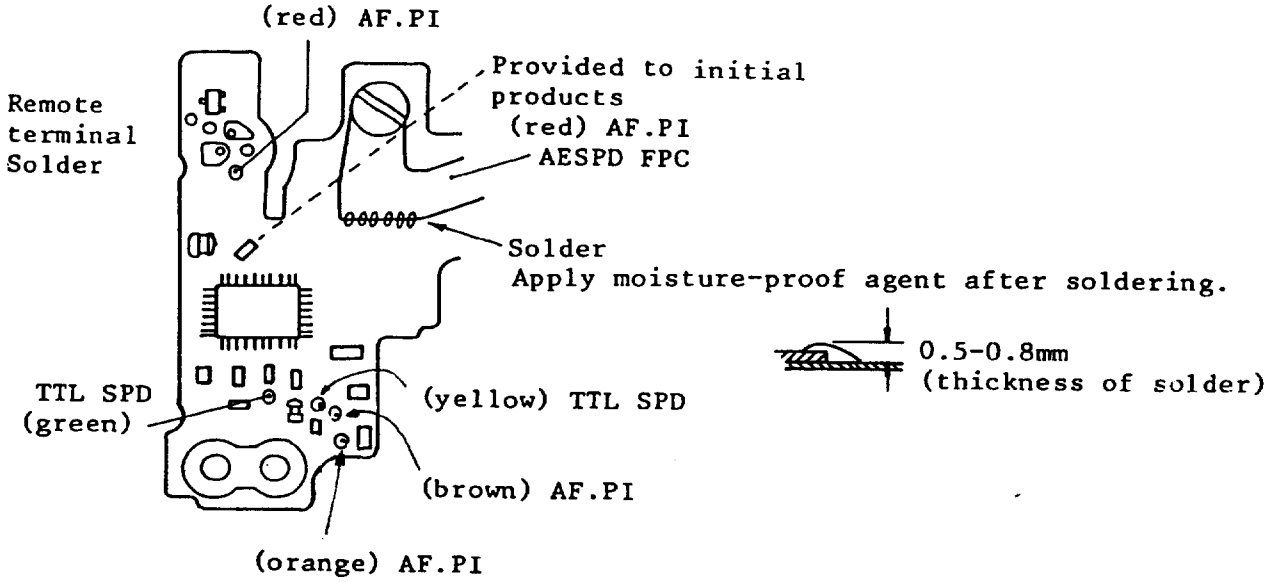
Installation:

Press-contact




Soldering

Soldering




AF.PI: AF photo interrupter

## HOW TO REPLACE APERTURE PHOTO INTERRUPTER WITH FRONT BODY ATTACHED

* Refer to the figures in the page A7 and A9.

Disassembling:

Manual aperture stop-down base plate

↓ Unsolder.
Remove manual aperture stop-down base plate while depressing aperture lever from the bayonet side.

Shutter release lever

↓ As the shutter release lever is caught by the body and cannot be taken out, keep it free.

Aperture ratchet gear

↓

Aperture photo interrupter

Installation:

Set the square hole of aperture counter disk downmost and hook the spring #341 on the square hole.

↓

Install aperture photo interrupter, hook the spring #341 on the aperture photo interrupter retainer plate and apply Screw Lock #350.

↓

Turn the idle gear half. Then, mount the aperture ratchet gear.

↓

Shutter release lever

↓

Manual aperture stop-down base plate

ASSEMBLING & ADJUSTMENT PROCEDURES (REAR BODY)

SMALL PARTS ON REAR BODY ..... B3

↓

CAMERA BACK SW ..... B4

↓

FILM ADVANCE MOTOR BASE PLATE UNIT ..... B4

↓

Mount motor, reference switch and gears.
Inspect the space between reference switch and reference gear cam.
Mount sprocket gear.

↓

MOUNT BOTTOM BASE PLATE GEAR UNIT ON FILM ADVANCE MOTOR BASE PLATE UNIT. ..... B6

↓

Inspect the operation of gear train.

↓

BATTERY HOLDER RELEASE SW ..... B6

↓

Inspect the switch ON/OFF operation.

↓

ATTACH POWER SW FPC ON FILM ADVANCE MOTOR BASE PLATE UNIT. .... B7

↓

MOUNT POWER SW FPC AND FILM ADVANCE MOTOR BASE PLATE UNIT ON REAR BODY. .... B7

↓

Camera back SW screw
Film advance photo interrupter

↓

FILM ADVANCE LEVER UNIT ..... B9

↓

Adjust the position of solenoid.
Sequence start position

↓

SEQUENCE GEAR BASE PLATE ..... B11

↓

Spool
Sequence motor
Gears

↓

MOUNT FILM ADVANCE LEVER UNIT ON SEQUENCE GEAR BASE PLATE. .... B11

↓

Inspect the operation of gear train.

↓

FILM DETECTION SW BASE PLATE ..... B12

↓

FILM DETECTION RING, SPROCKET ..... B12

MOUNT SEQUENCE BASE PLATE UNIT ON REAR BODY. ..... B12

How to mount
Inspect the rotation of sprocket.
Inspect the rotation of spool.
Inspect and adjust OFF-position of film detection SW.

SHUTTER UNIT, DB.DX CONTACT BASE PLATE UNIT ..... B13

REWIND BASE PLATE, PRESS-CONTACT PLATE,
CAMERA BACK OPEN/CLOSE KEY ..... B14

SOLDERING OF LEAD WIRES ON POWER SW FPC ..... B15

Arrange lead wires.
Cover plate

MOUNT FRONT BODY ON REAR BODY. ..... B16

ADJUST FLANGE FOCAL DISTANCE. ..... B16

INTERNAL LCD, EXTERNAL LCD ..... B17

Adjust the display position of internal LCD.

ADJUST THE POSITION OF F-Fo BASE PLATE. ..... B18

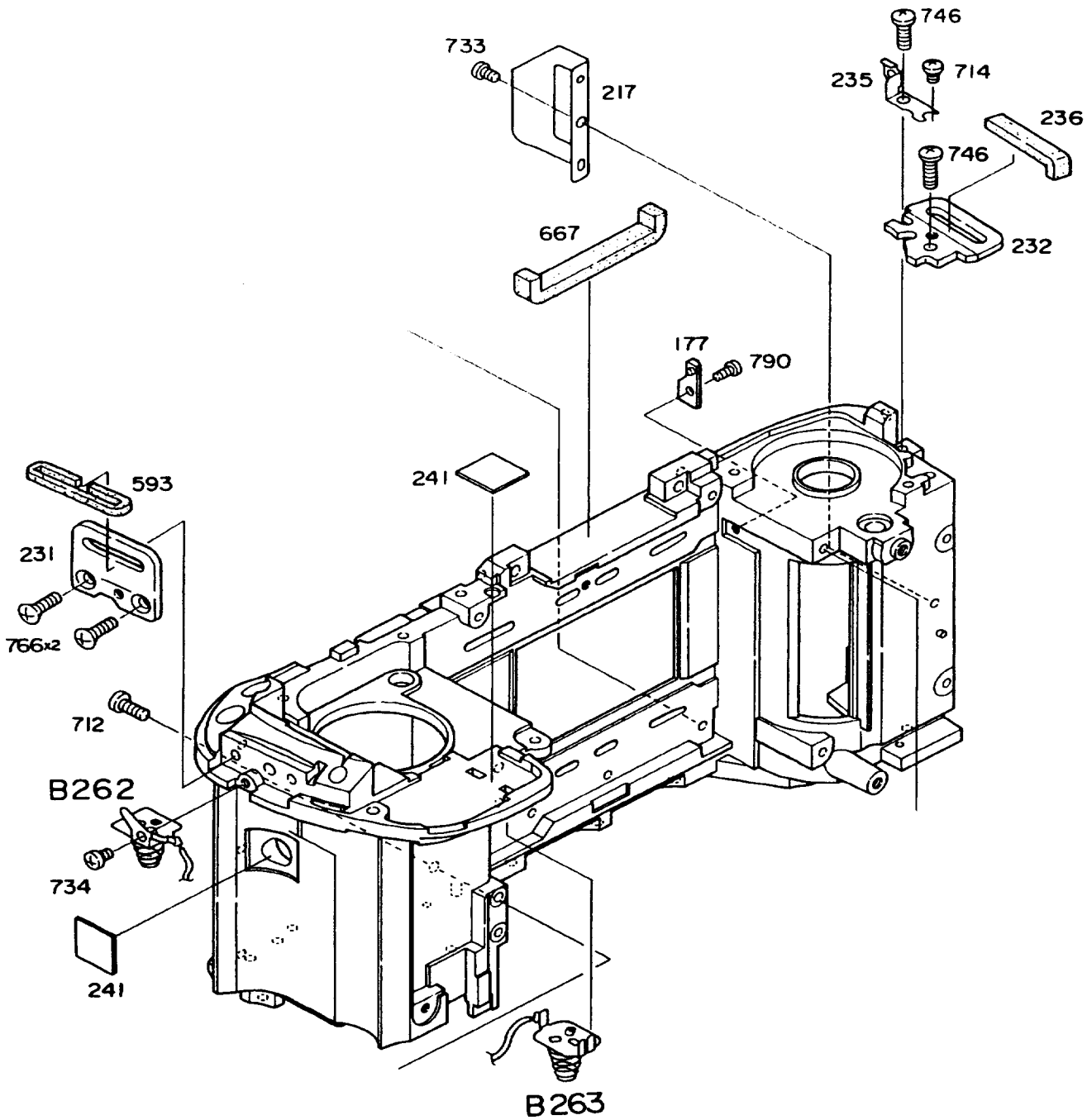
TOP COVER UNIT ..... B19

CAMERA BACK ..... B21

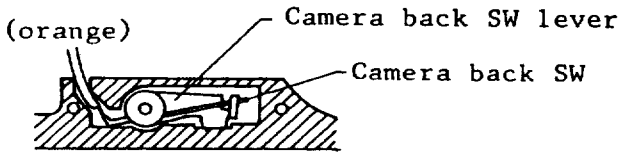
ADJUSTMENT OF AE AF ACCURACY ..... B22

HOW TO BEND FPC, ATTACH DOUBLE-SIDED ADHESIVE TAPE ..... B23

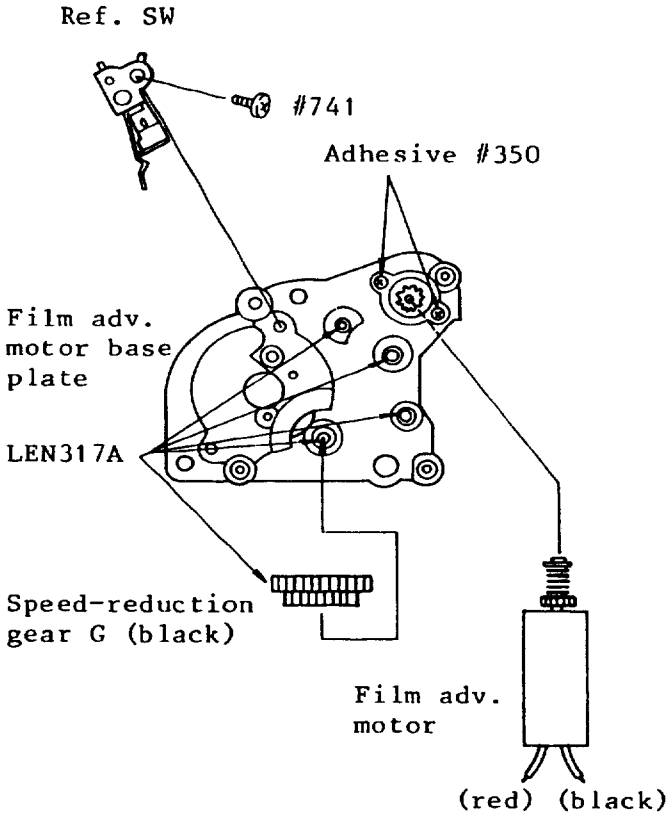
SMALL PARTS ON REAR BODY

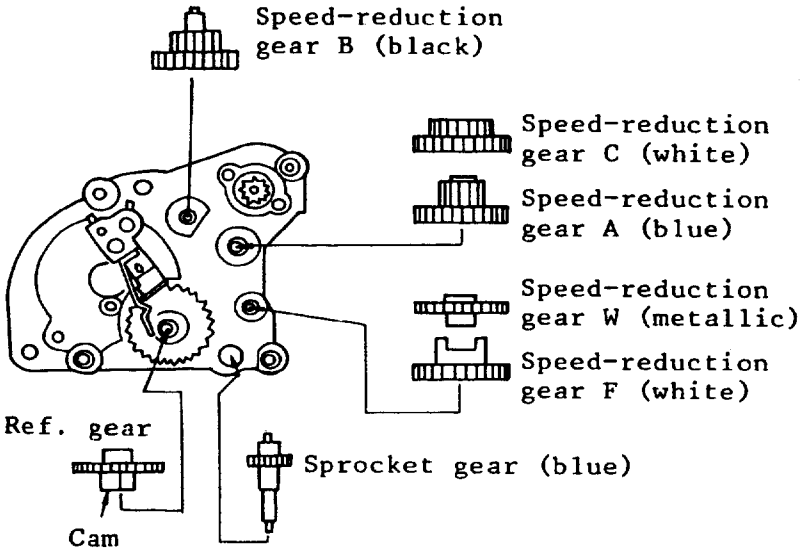


## CAMERA BACK SW




## FILM ADVANCE MOTOR BASE PLATE UNIT



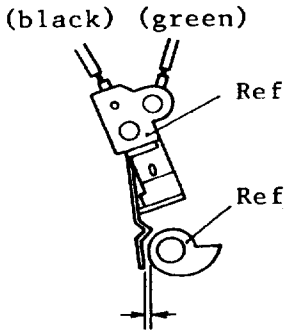




Installation:

Film adv. motor
↓ #782x2
Speed-reduction gear G (black)
↓
Ref. SW
↓ #741x1
Gears

Order of installation:

Gear A (blue)
Gear B (black)
Gear F (white)




There is to be a certain space.

Gear C (white)

Gear W (metallic)

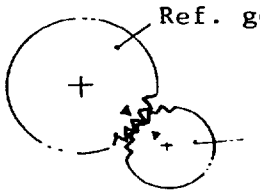
Ref. gear (blue)

Inspection:

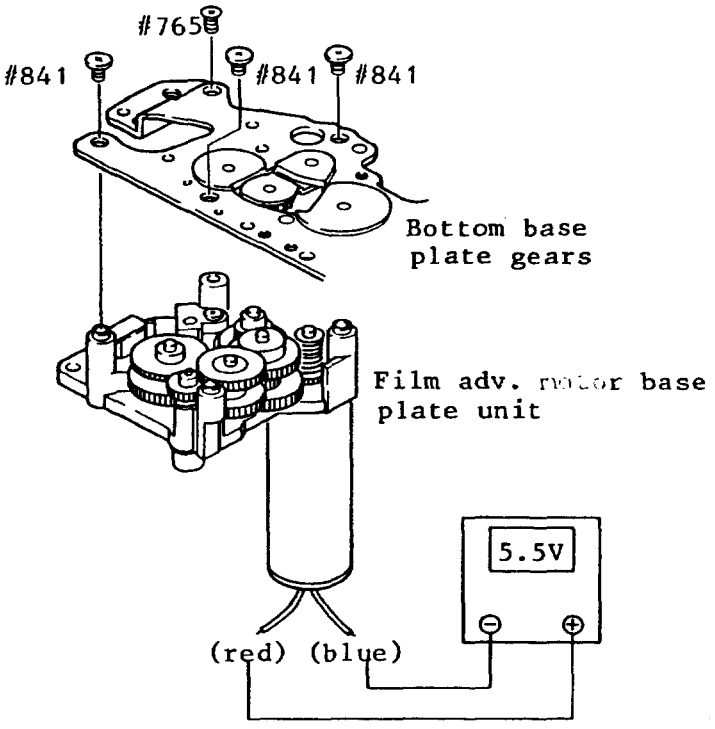
There is to be a certain space between Ref. SW and Ref. gear cam when the cam is at the position shown in the figure.

Sprocket gear

Align two black triangle marks on Ref. gear and sprocket gear.



MOUNT BOTTOM BASE PLATE GEAR UNIT ON FILM ADVANCE MOTOR BASE PLATE UNIT.



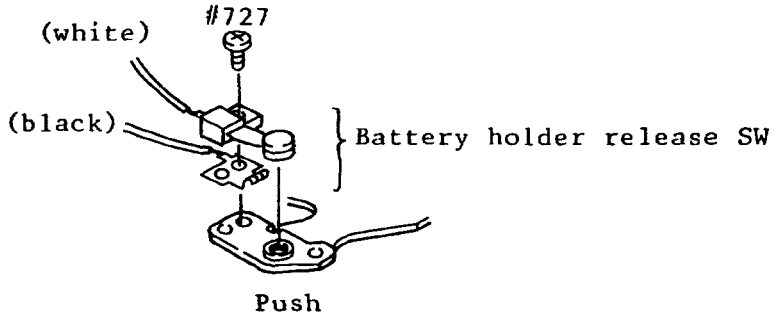

Installation:

#765x1
#841x3

Inspection:

Connect film adv. motor wires with DC regulated power supply and check for motor, gear train and sound.
Reverse the polarity and inspect film advance and rewind.
(Battery (1.5V) can also be used for the inspection)

BATTERY HOLDER RELEASE SW



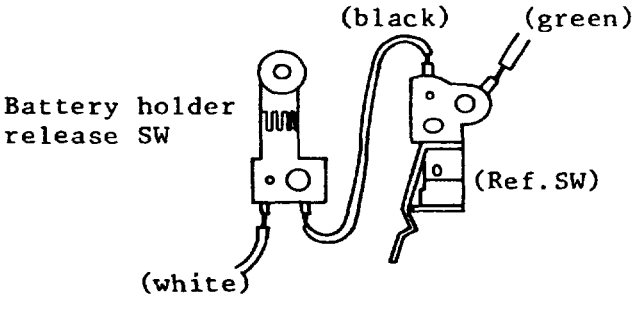

Installation:

#727x1

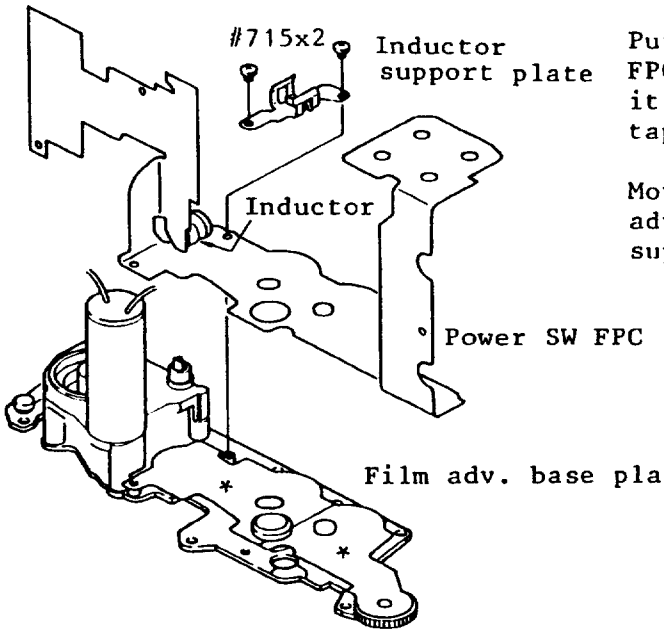
Inspection:

Inspect ON/OFF operation of switch. (To be switched on and off smoothly.)

Arrange lead wires.



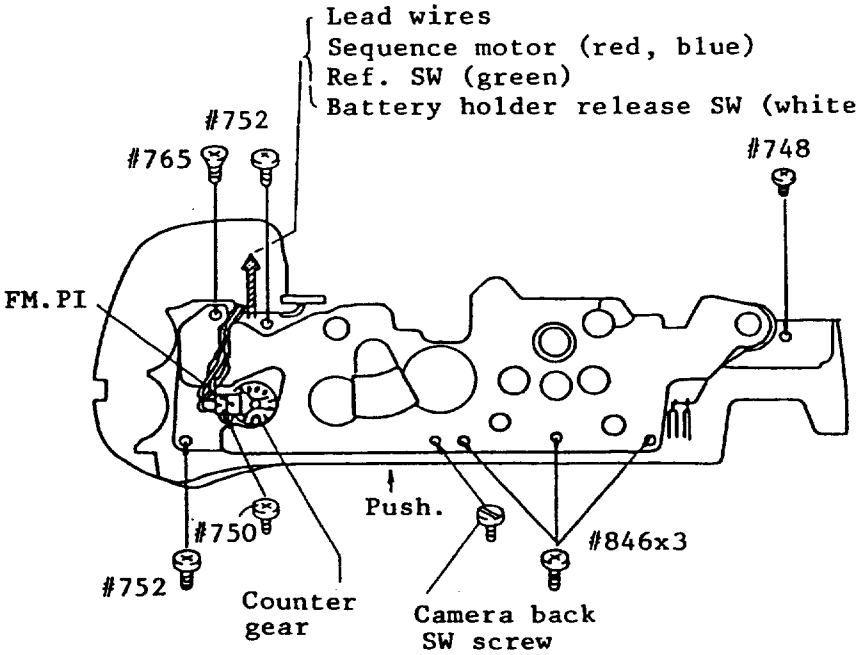
## ATTACH POWER SW FPC ON FILM ADVANCE MOTOR BASE PLATE UNIT.




Put inductor support plate on FPC and tripod socket, and fix it with double-sided adhesive tape.

Move inductor to the film advance side with inductor support plate before fixing.

## MOUNT POWER SW FPC AND FILM ADVANCE MOTOR BASE PLATE UNIT ON REAR BODY.




Installation:

#765x1
#752x2
#846x3
#748x1 (FPC screw)

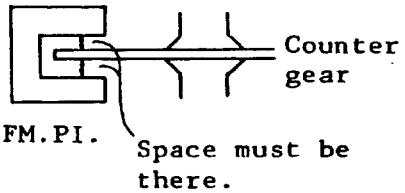
Camera back SW screw
Mount a screw while pushing camera back SW.

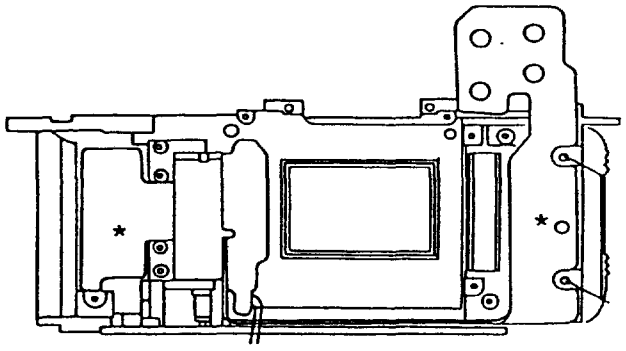
Inspection:

ON/OFF operation of camera back SW
Camera back SW lead wire (orange)

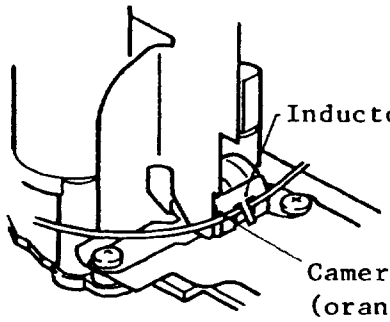
Counter gear

Film adv. photo interrupter (FM.PI)



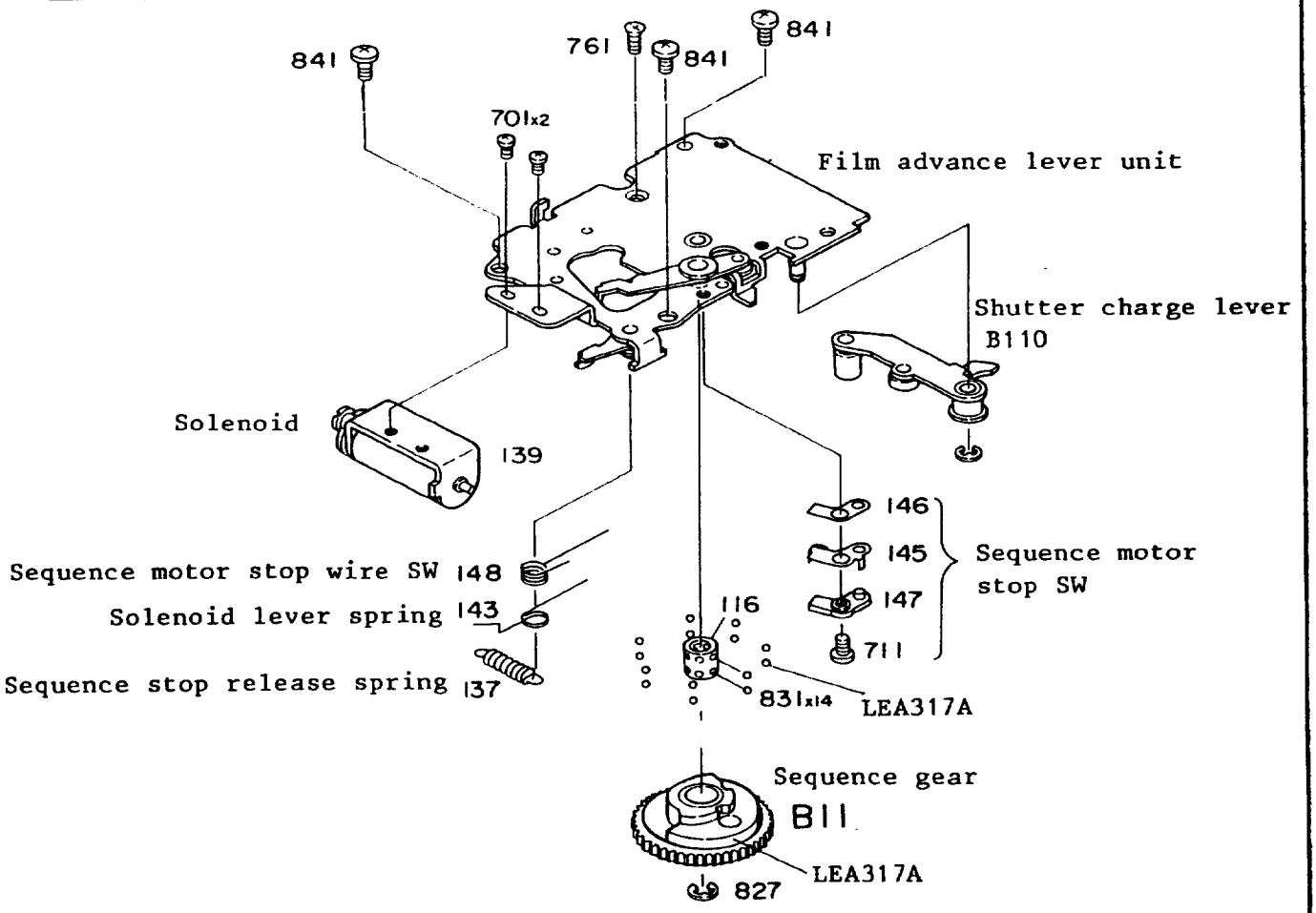


Attach power SW FPC with double-sided adhesive tape (*).



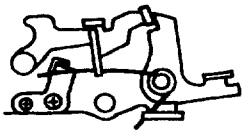

Arrange camera back SW lead wire (orange).

## FILM ADVANCE LEVER UNIT

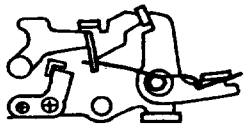



Installation:

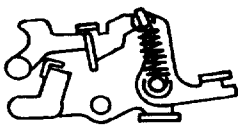
Sequence motor stop wire SW

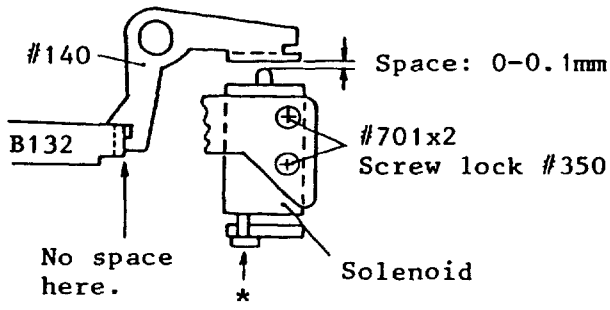


Solenoid spring



Sequence stop release spring





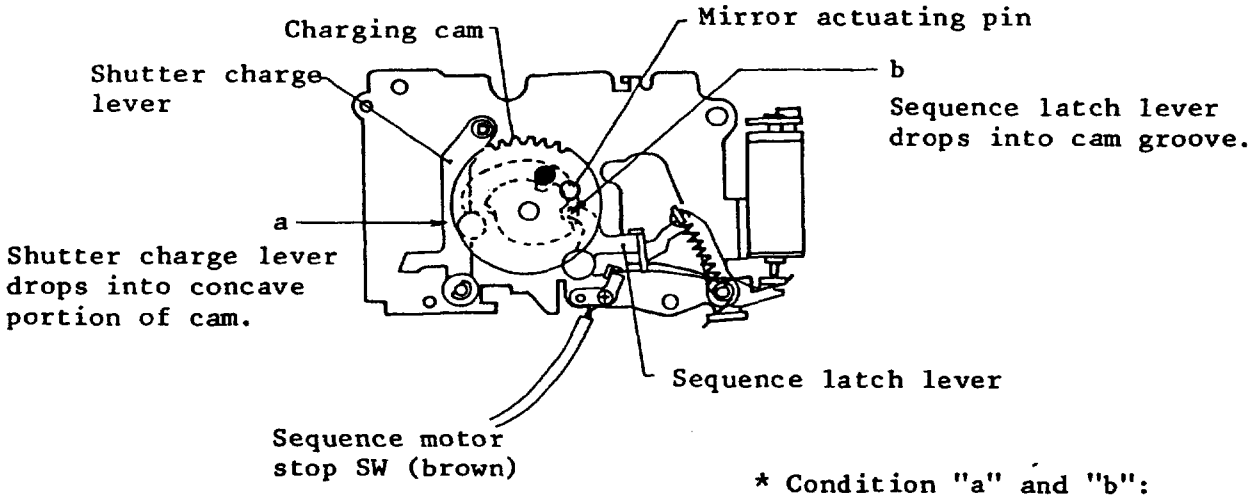

Adjustment of solenoid

Standard: When B132 is entirely engaged with #140, space between #140 and solenoid should be 0-0.1mm.

Adjustment: Unfasten screws (#701x2) and adjust the position of solenoid.

Inspection: After the adjustment, disengage B132 from #140 and again engage them. Then, inspect the space between #140 and solenoid.

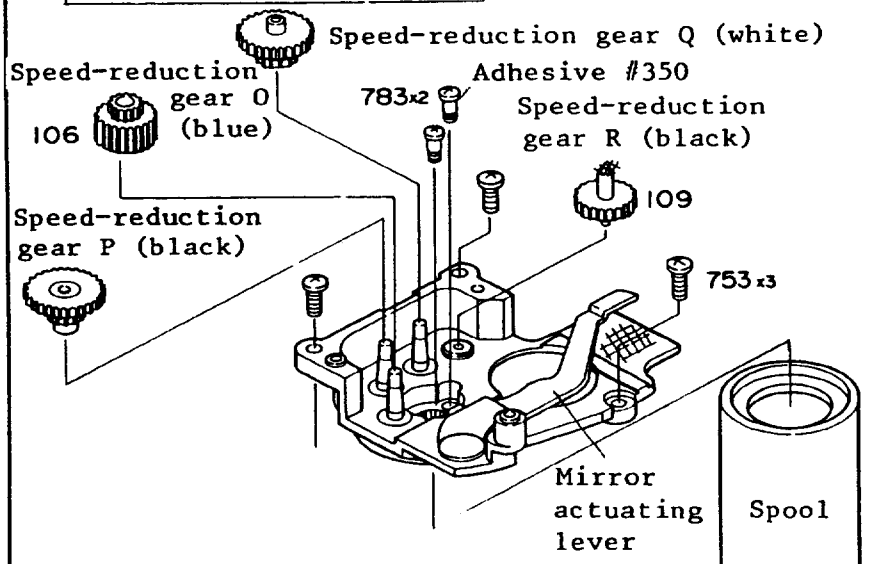
Note: 1. Apply adhesive #350 to the screws (#701x2) fixing solenoid.
2. Be careful not to move solenoid limitter pin (*).




* Condition "a" and "b":

Sequence start position

## SEQUENCE GEAR BASE PLATE




Installation:

Sequence gear base plate

↓

Spool

↓

Sequence motor

#783x2

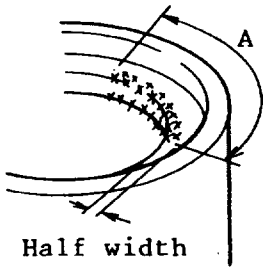
↓

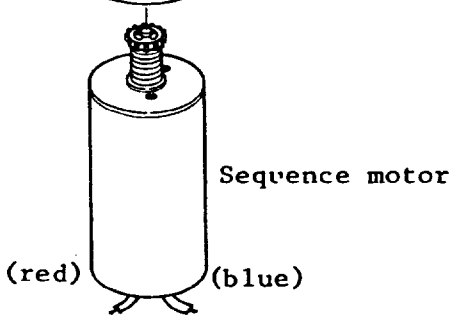
Gears

Order:

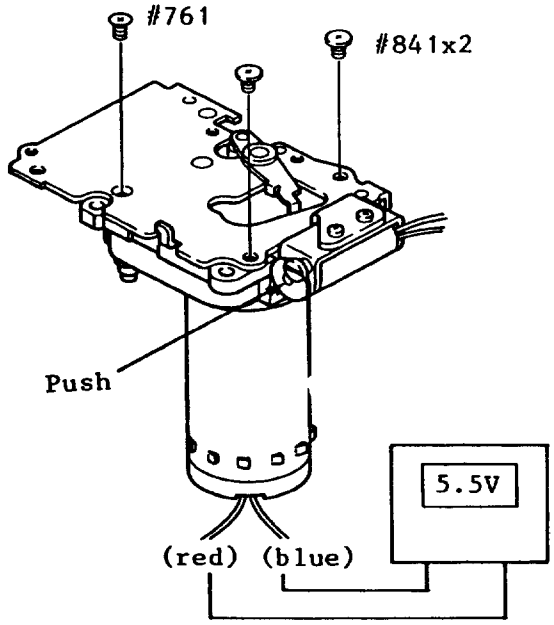
Gear O (blue)
Gear R (black)
Gear Q (white)
Gear P (black)

Apply LEN317A to the shaded portion and to the teeth of each gear.




## MOUNT FILM ADVANCE LEVER UNIT SEQUWNCE GEAR BASE PLATE




* Be careful of the polarity.

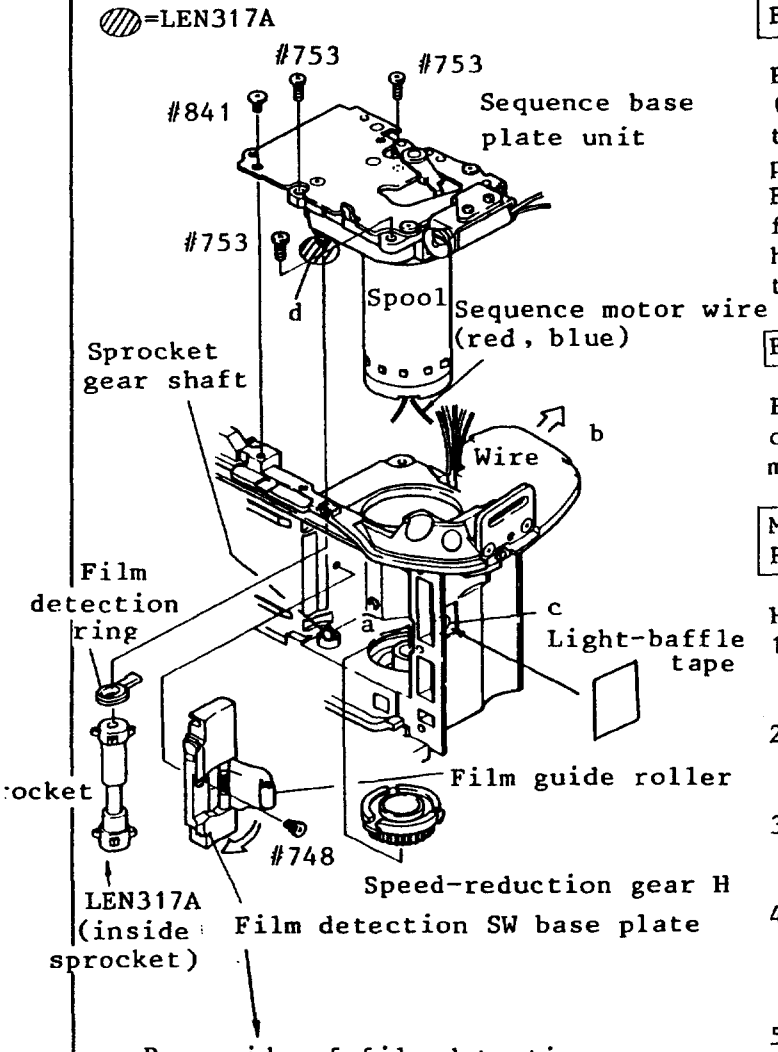
Adjust film advance lever unit to sequence start position before mounting it on sequence gear base plate.

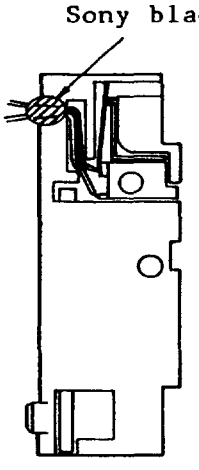
#761x1, #841x2

Inspection:

Inspect the operation of gear train Connect sequence motor lead wires (red, blue) with DC regulated power supply. Push solenoid to inspect the operation of motor and gear train.

If motor and gear train do not operate when solenoid is pushed, charging cam may be sticking on sequence latch lever. In this case, stop the current once to release the latch.
(Battery 1.5V can be used for inspection.)




## FILM DETECTION SW BASE PLATE

Pull out film detection SW lead wires (brown, yellow) in the direction "b" through the hole at the upper left portion of spool chamber.
Fix film detection SW base plate by fastening a screw #748 through the hole "c". then paste light baffle tape to cover the hole "c".

## FILM DETECTION RING, SPROCKET

Fit the concave portion of the bottom of sprocket with sprocket shaft to mount the sprocket on the body.

## MOUNT SEQUENCE BASE PLATE UNIT ON REAR BODY.

How to mount:

1) Insert spool into the body while holding film guide roller in the arrow direction.
2) Make the sequence motor wires (red, blue) run through the portion "a" and pull out in the direction "b".
3) Set the bottom of spool (concave portion) on the convex portion of the speed-reduction gear H.
4) The protrusion "d" on sequence base plate unit passes through film detection ring and works as an upper shaft of sprocket.
5) Fasten screws (#841x1, #753x3).

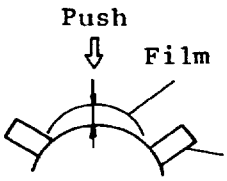
Inspection:

- Inspect sprocket rotation -

Turn sprocket with your finger and confirm that counter gear and sprocket gear in the film advance motor base plate unit can rotate.

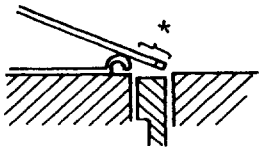
- Inspect spool rotation -

Spool should rotate smoothly.




To turn off by
0.5mm or more

Film detection SW




- Inspect and adjust OFF-position of film detection SW -

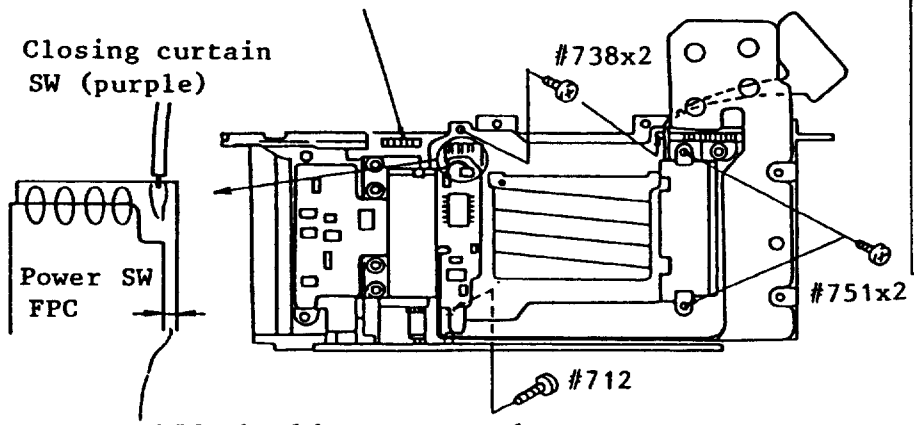
Connect film detection SW wires (brown, yellow) with the tester ( ). Push film detection SW and check for the position where the switch turns off.

Standard: 0.5mm or more from sprocket surface

Bend the portion indicated with * mark of film detection SW to adjust.

## SHUTTER UNIT, DB.DX CONTACT BASE PLATE UNIT

Adjust charging gear to Sequence Start position by rotating to the right.




Power SW FPC should not protrude to the right.

Installation:

Shutter unit

Adjust sequence base plate to the sequence start position and then install shutter unit

#712x1, #738x2

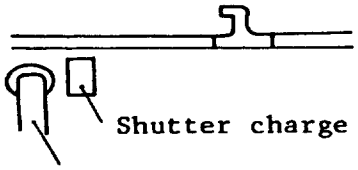
Solder power SW FPC on shutter base plate.

DB.DX contact base plate unit

#751x2

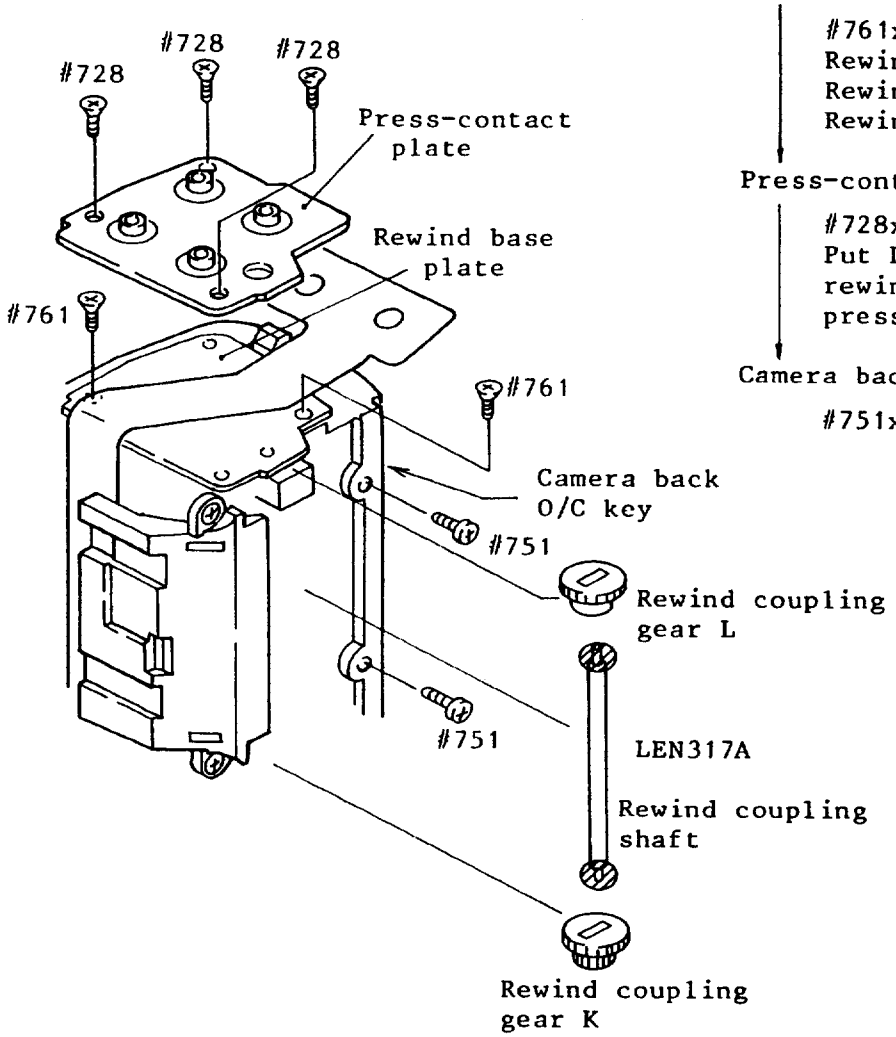
DB contact cover
(Refer to the disassembling section, page D5.)

Charge lever




Charge lever in shutter unit

REWIND BASE PLATE, PRESS-CONTACT PLATE, CAMERA BACK OPEN/CLOSE KEY



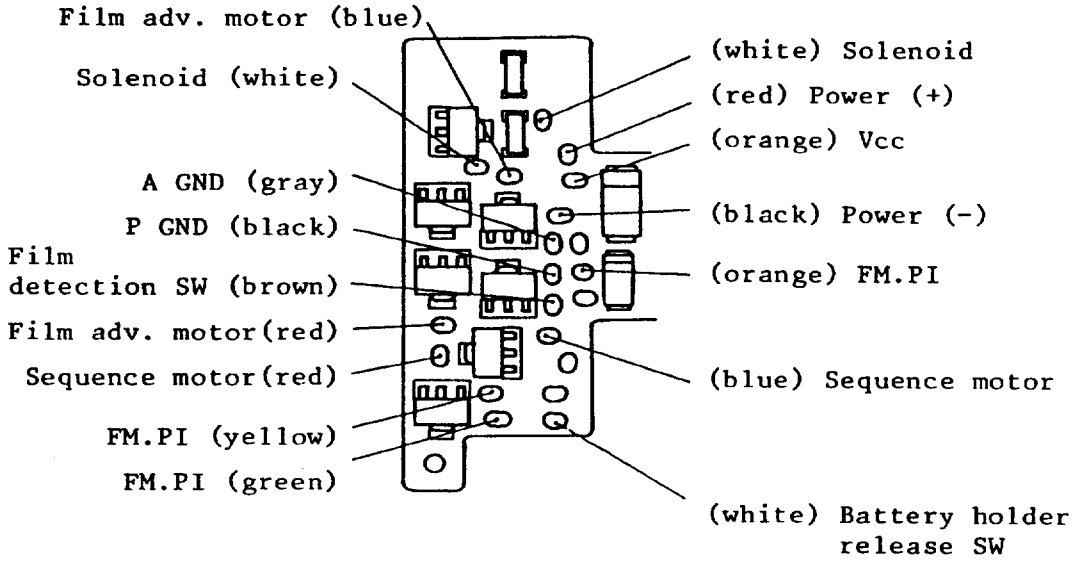

Installation:

Rewind base plate
- #761x2
- Rewind coupling shaft
- Rewind coupling gear L
- Rewind coupling gear K

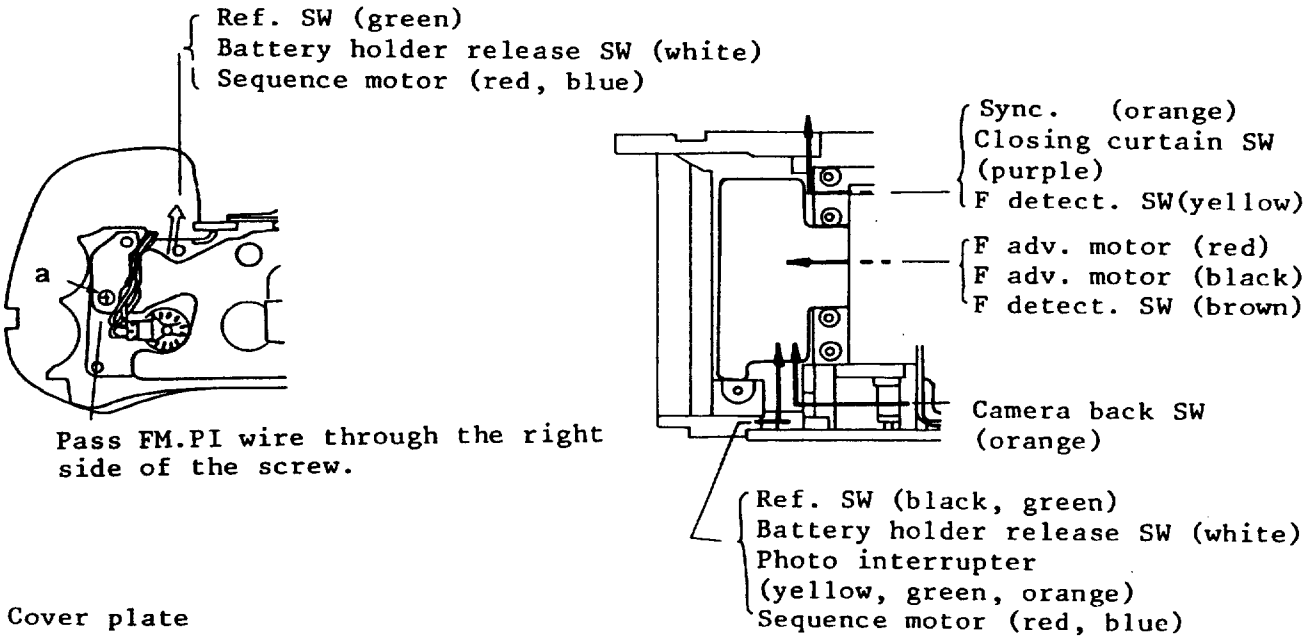
Press-contact plate
- #728x3
- Put DB.DX FPC between rewind base plate and press-contact plate.

Camera back open/close key
- #751x2

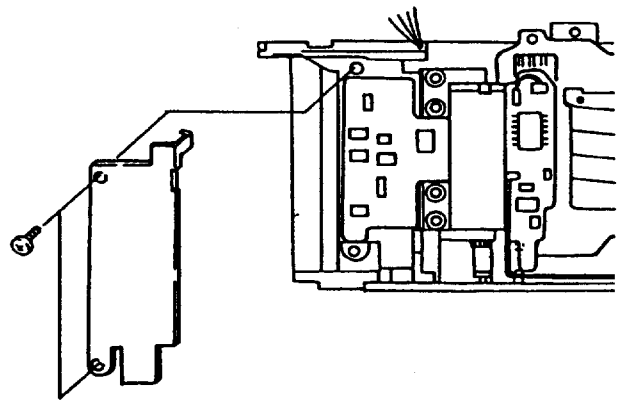
## SOLDERING OF LEAD WIRES ON POWER SW FPC




Arrange lead wires.


Ref. SW (green)
Battery holder release SW (white)
Sequence motor (red, blue)
a
Pass FM.PI wire through the right side of the screw.
Sync. (orange)
Closing curtain SW (purple)
F detect. SW(yellow)
F adv. motor (red)
F adv. motor (black)
F detect. SW (brown)
Camera back SW (orange)
Ref. SW (black, green)
Battery holder release SW (white)
Photo interrupter (yellow, green, orange)
Sequence motor (red, blue)

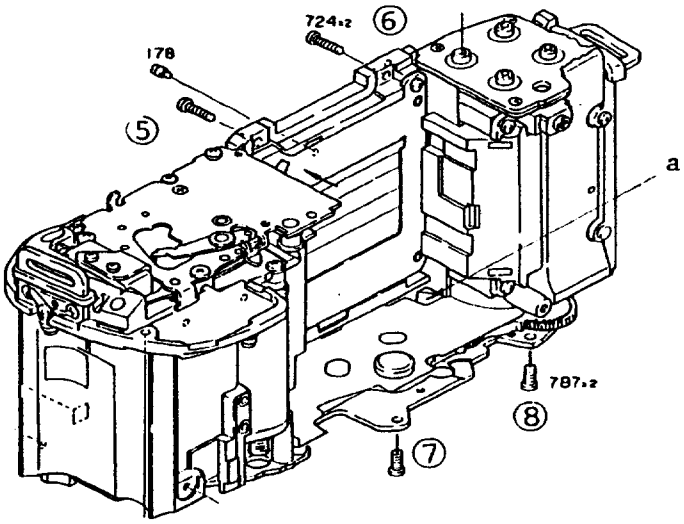
Cover plate



Be careful not catch lead wires with cover plate.

## MOUNT FRONT BODY ON REAR BODY.

Mirror actuating lever

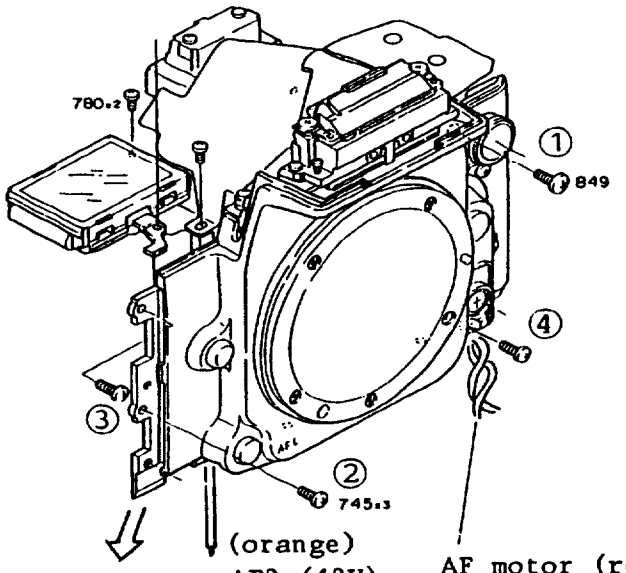



How to mount:

Adjust sequence base plate unit to sequence start position. (Mirror actuating lever is the backmost position.)

Mount front body.
Pass AF motor lead wires (red, blue) through the portion "a".

Fasten screws in the order indicated in the figure while pushing front body in the lower left direction.




(orange)
AP2 (12V)

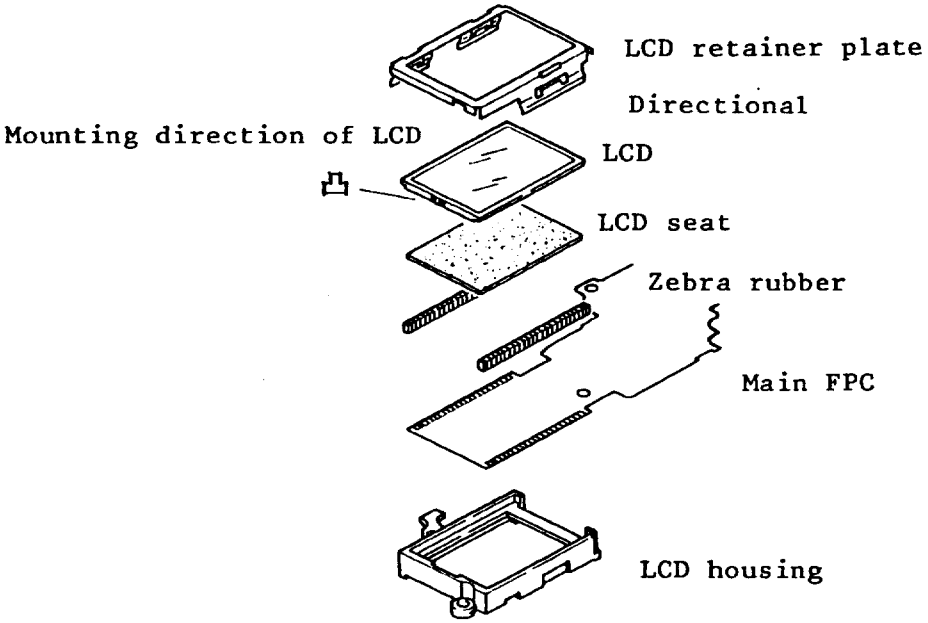
AF motor (red, blue)
Pass wires through portion "a".

Refer to disassembling section as to the press-contact, soldering of lead wires and installation of covers.

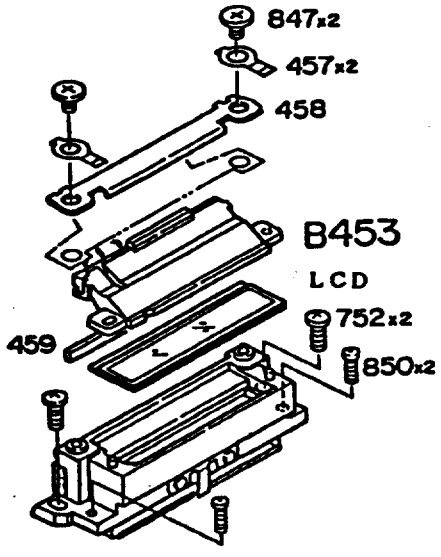
## ADJUST FLANGE FOCAL DISTANCE.

## INTERNAL LCD, EXTERNAL LCD

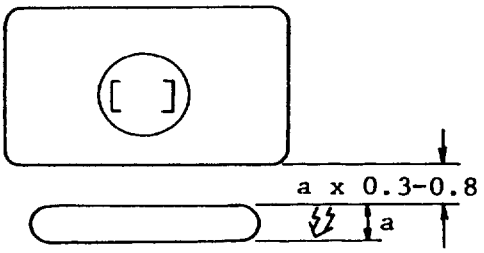
External LCD




Internal LCD

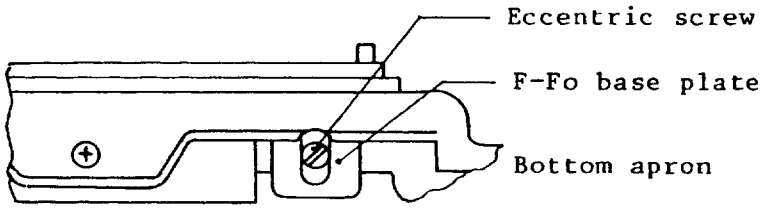


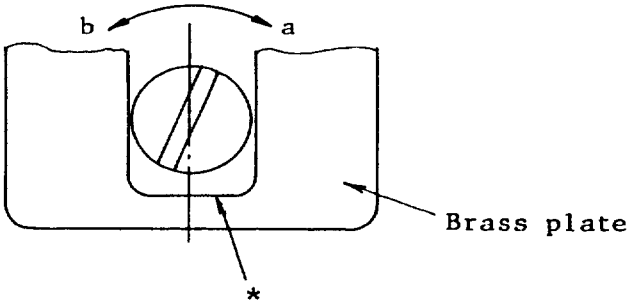

Adjust the display position of internal LCD.




Screw (#752x2): To adjust inclination
Screw (#850x2): To adjust vertically

## ADJUST THE POSITION OF F-Fo BASE PLATE.



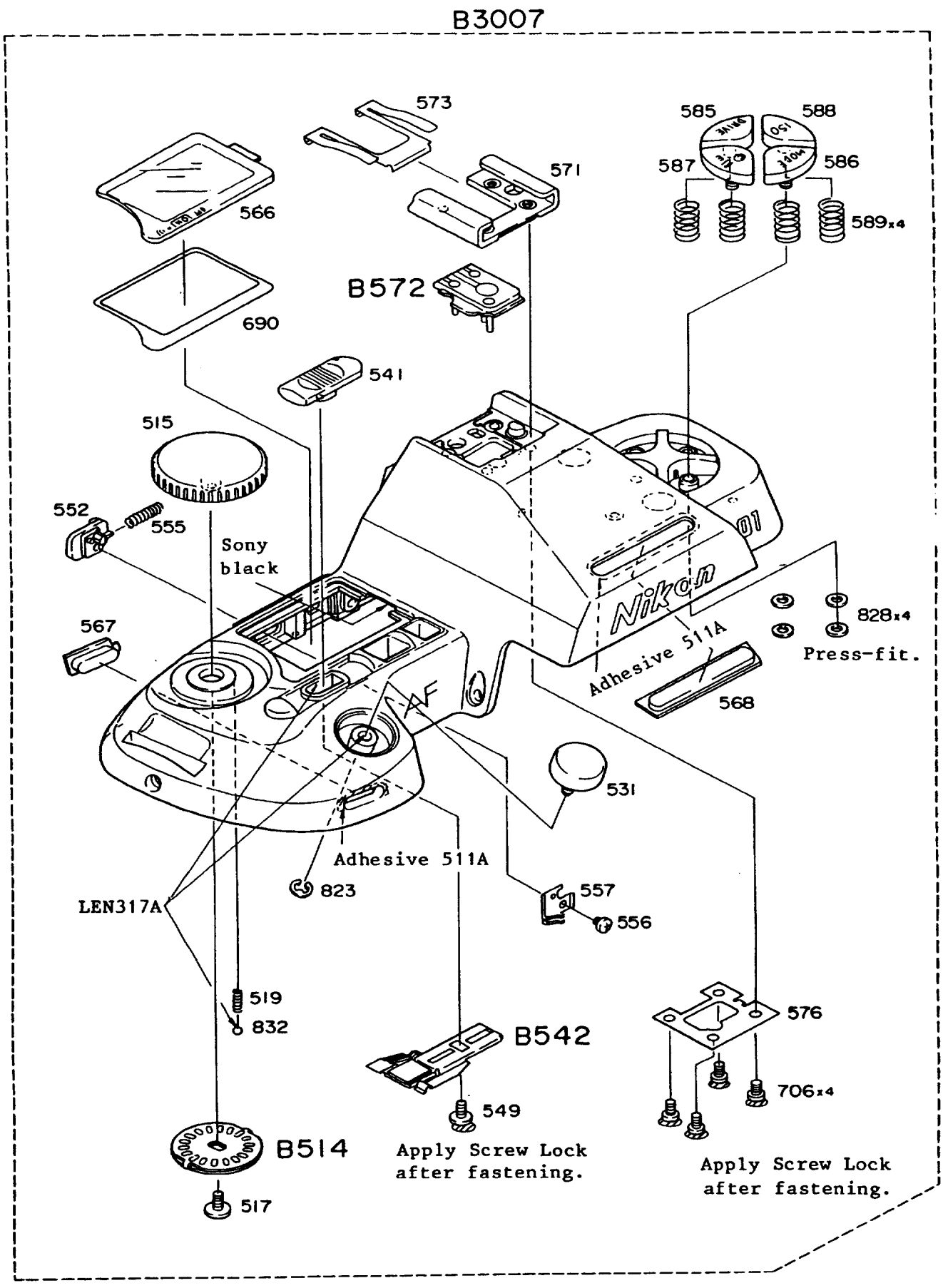

1. Turn eccentric screw to shift F-Fo base plate to the right limit as viewed from the bottom.

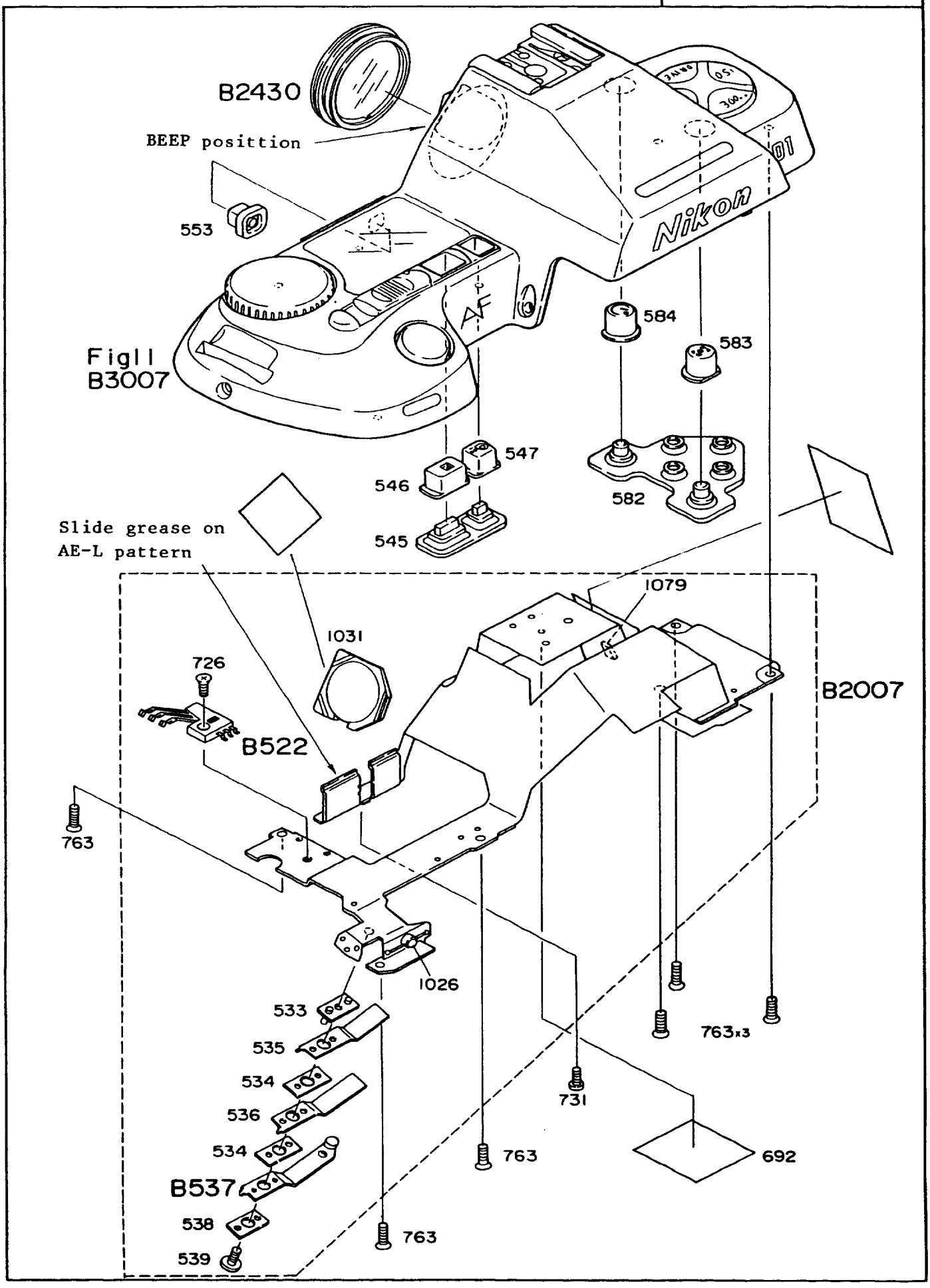
2. Attach F-Fo tool lens J18202 to the body.

   Note: Be careful not to mount the lens too forcefully so that the lens release pin should not be one-sided.

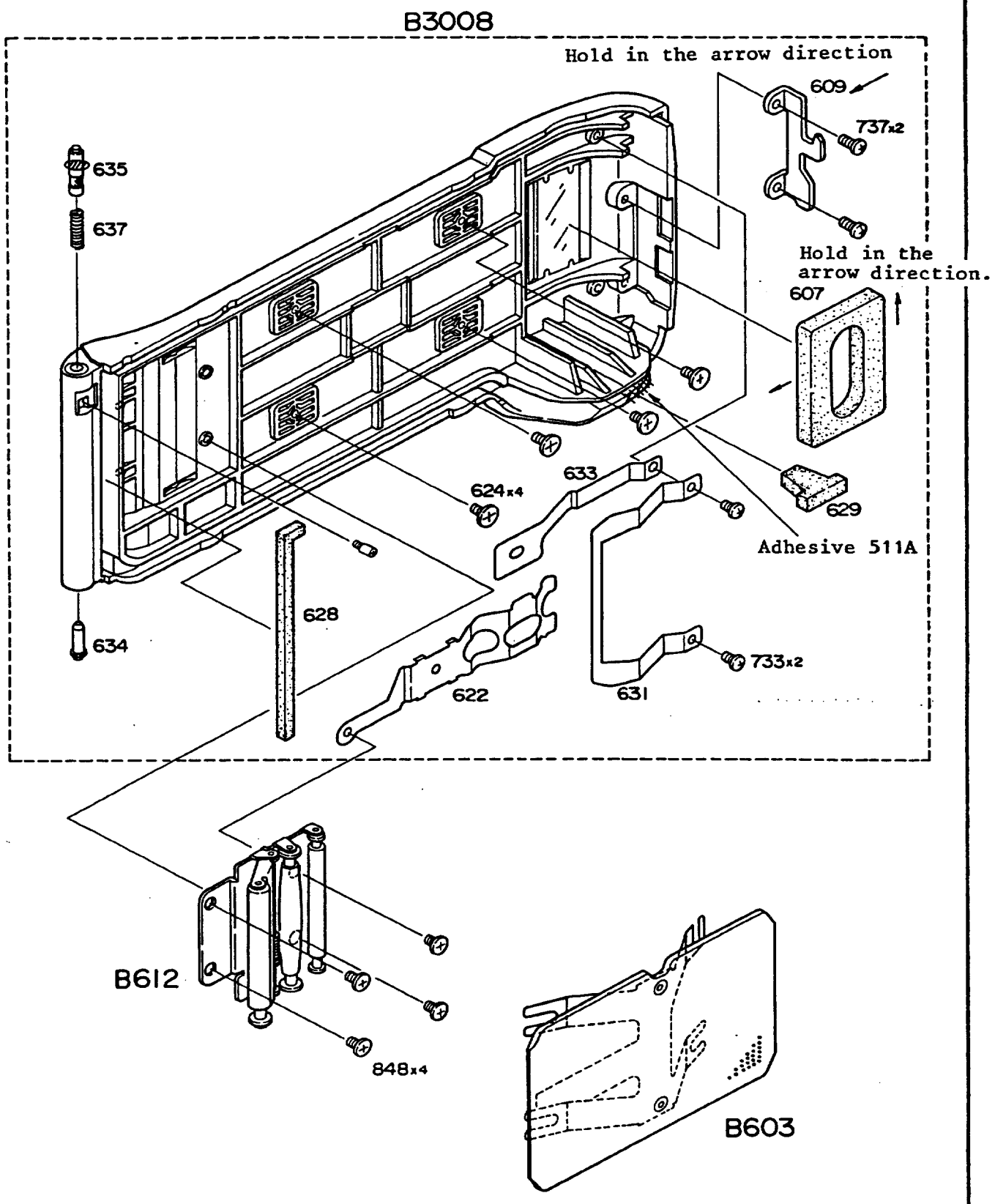
3. Set the exposure mode to A or M, and turn eccentric screw in the direction "b" while observing the aperture display. Stop turning the instant the aperture display shifts to F2 from F1.8.

   Note: Be sure to turn the eccentric screw in the direction "b". If the aperture display advances excessively, readjust by turning eccentric screw in the direction "b" after shifting F-Fo base plate to the right limit again.


B3007
573
571
585
588
587
586
566
589x4
B572
690
541
515
552
555
Sony
black
567
828x4
Press-fit.
Adhesive 511A
568
531
Adhesive 511A
823
LEN317A
557
556
519
832
576
B542
706x4
549
B514
Apply Screw Lock
after fastening.
Apply Screw Lock
after fastening.
517


B2430
BEEP posittion
553
Nikon
AF
584
583
Figll
B3007
547
546
545
582
Slide grease on
AE-L pattern
1079
1031
726
B2007
B522
763
1026
533
535
534
536
534
B537
538
539
763
731
763
763x3
692

LEN317A


B3008
Hold in the arrow direction
609
737x2
635
637
Hold in the arrow direction.
607
624x4
633
629
Adhesive 511A
628
634
622
631
733x2
B612
848x4
B603

ADJUSTMENT OF AE & AF ACCURACY

Follow the indication of the personal computer.

1. When main FPC is replaced:

- Writing standard position & temporary value in EEPROM
- AE adjustment (Gammer level)
- 1/8000 adjustment
- TTL adjustment
- B.C. level adjustment
- Hard AGC adjustment
- X BER P adjustment,
- YAW/PITCH/Z inspection & adjustment

2. Inspection of AE accuracy

- AE inspection/adjustment
- 1/8000 inspection/adjustment
- TTL inspection/adjustment

When main FPC is replaced, the program of personal computer automatically proceeds to Hard AGC adjustment from Writing EEPROM, then returns to Main Menu. After that, be sure to select "AF Inspection/Adjustment" and adjust AF accuracy in order to write AF compensation value into EEPROM.
(X BER P YAW PITCH Z)

3. When AF FPC unit is disassembled or when AE accuracy is not accurate:

- X BER P adjustment (A/B balance)
- YAW adjustment
- PITCH adjustment
- Z adjustment

4. Inspection of AF accuracy

AF metering inspection/ adjustment

5. When AF FPC (AP2) is replaced:

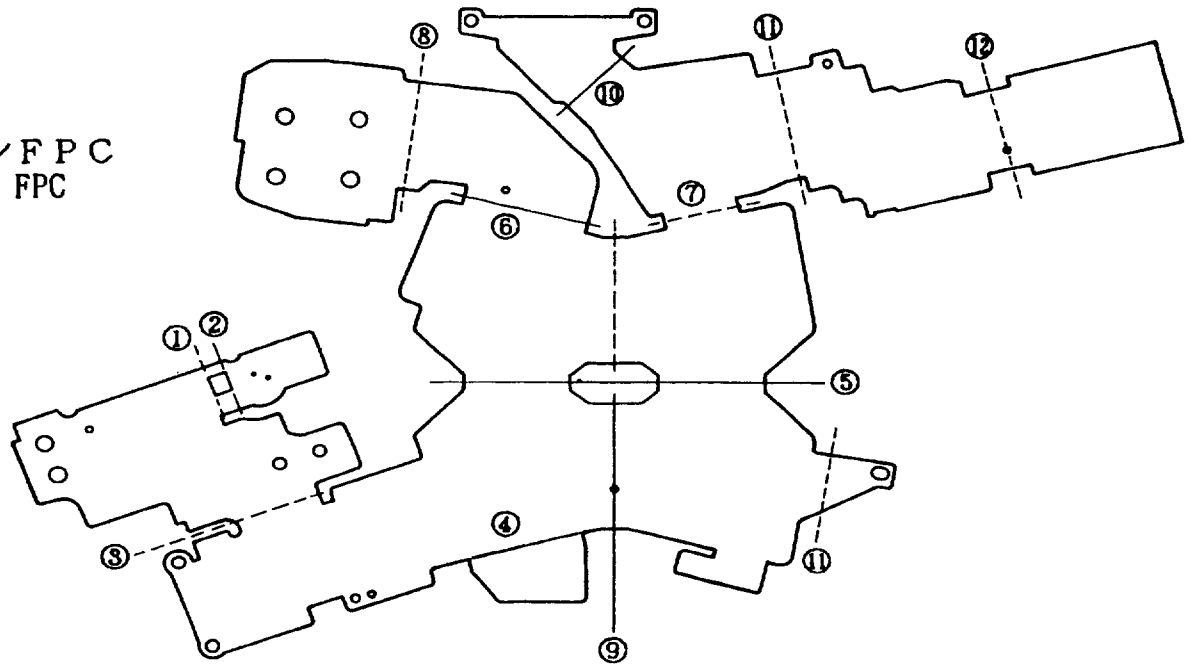
- X BER P adjustment
- YAW adjustment
- PITCH adjustment
- Z adjustment
- Hard AGC adjustment

Note: It is unnecessary to use Screw Lock for three adjustment screws of AF FPC (AP2).

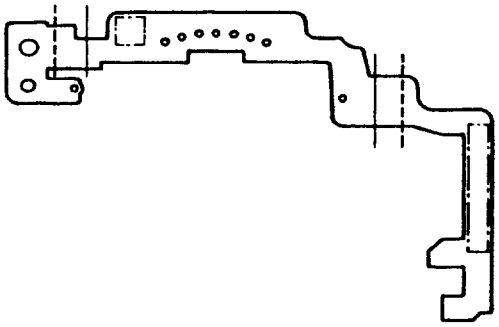
# ＦＰＣ折り曲げ・両面テープ貼り付け位置
HOW TO BEND FPC, ATTACH DOUBLE-SIDED ADHESIVE TAPE.

FAA22051 - R.3241.A

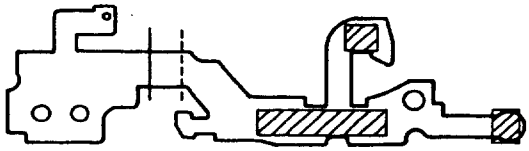
メインＦＰＣ
Main FPC




ＡＦ接点ＦＰＣ
AF contact FPC



ＡＦ基板ＦＰＣ
AF bace plate FPC



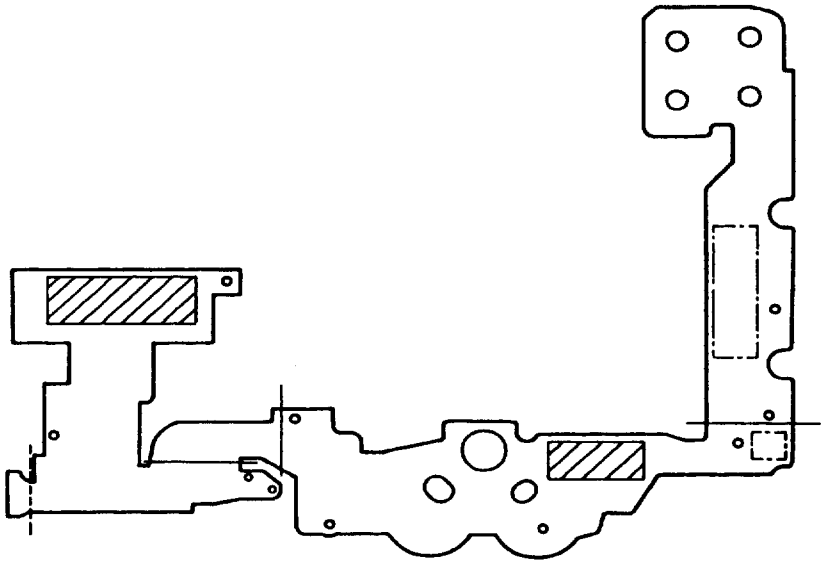
—— 山折り
Solid line means bend back

---- 谷折り
Dotted line means bend forwaard

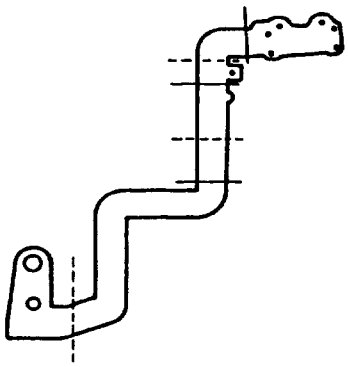
表に両面テープを貼り付ける
Attach double-side adhesive tape to surface

裏に両面テープを貼り付ける
Attach double-side adhesive tape to rear face

電源ＦＰＣ
Power unit FPC



ＡＥ ＳＰＤ ＦＰＣ



—— 山折り
Solid line means bend back

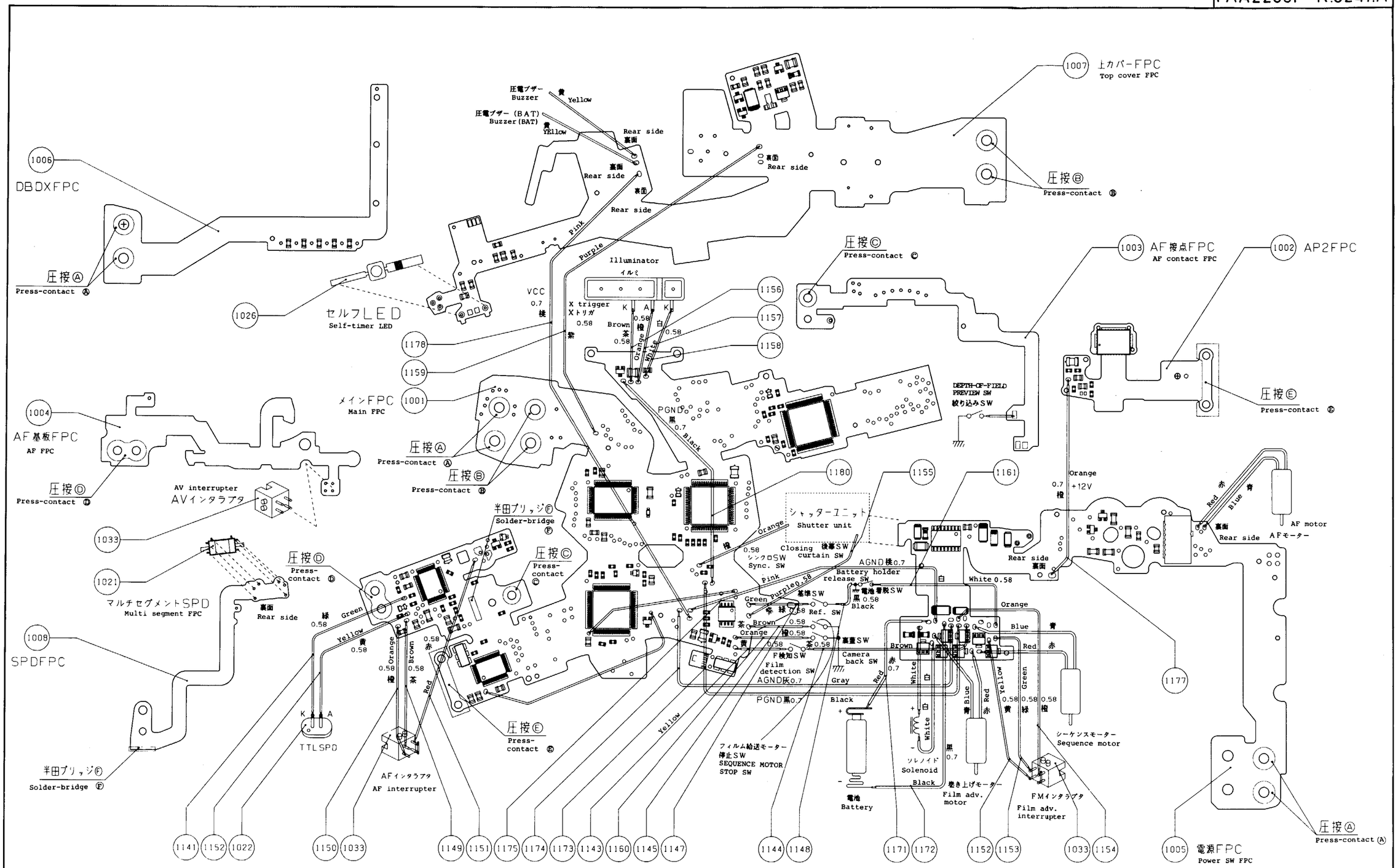
---- 谷折り
Dotted line means bend forwaard

表に両面テープを貼り付ける
Attach double-side adhesive tape to surface

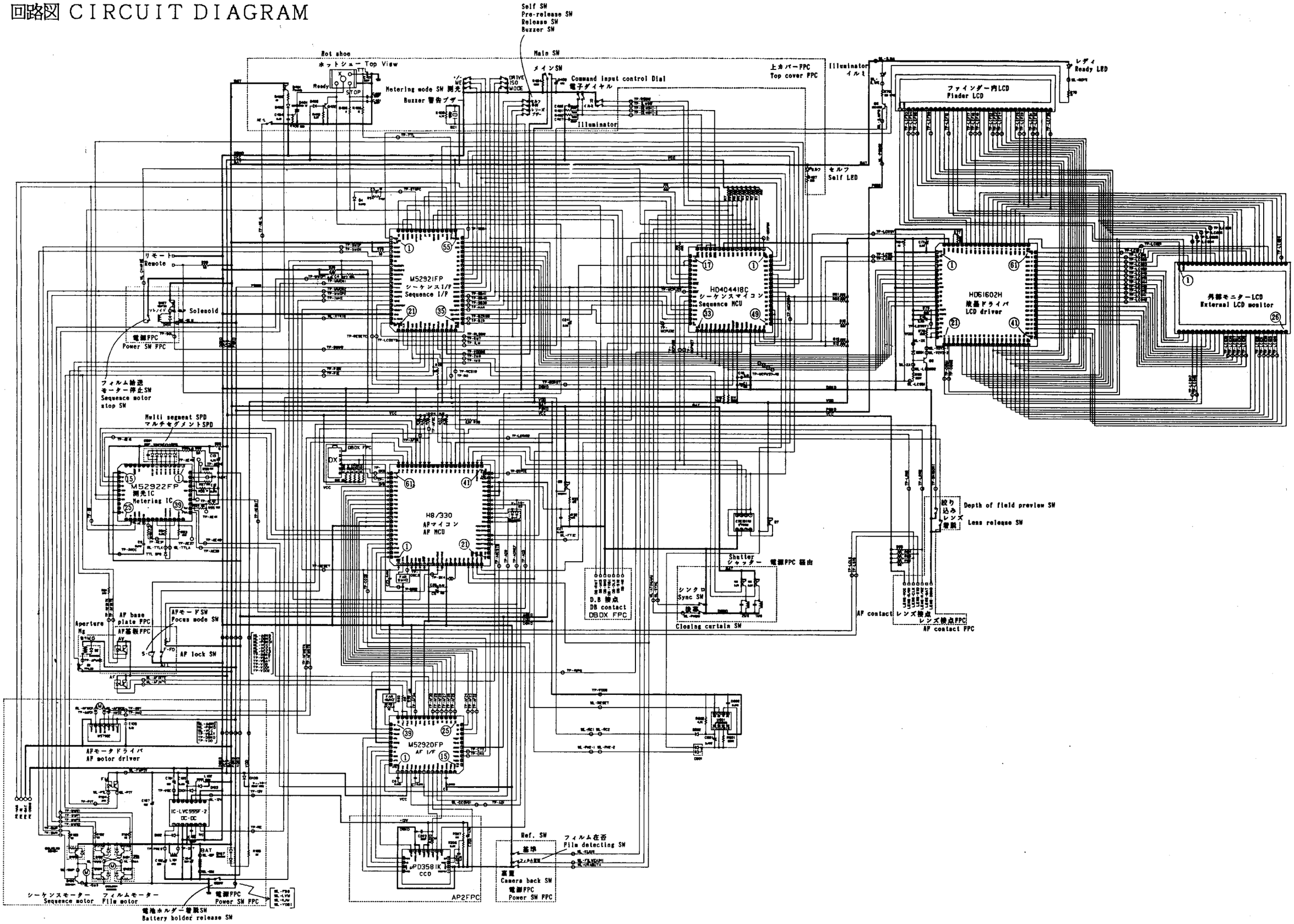
裏に両面テープを貼り付ける
Attach double-side adhesive tape to rear face

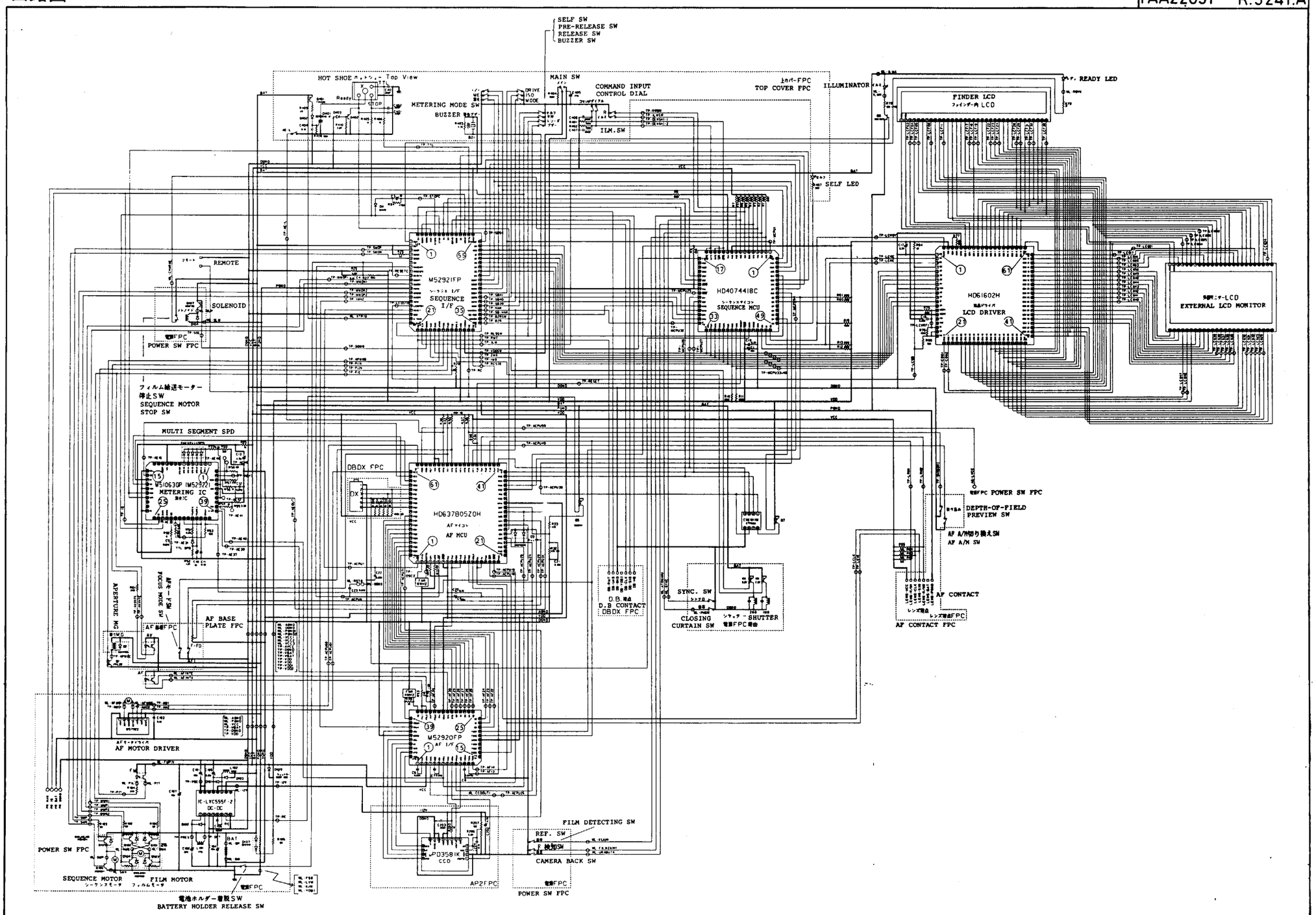
# 実体配線図 WIRING DIAGRAM

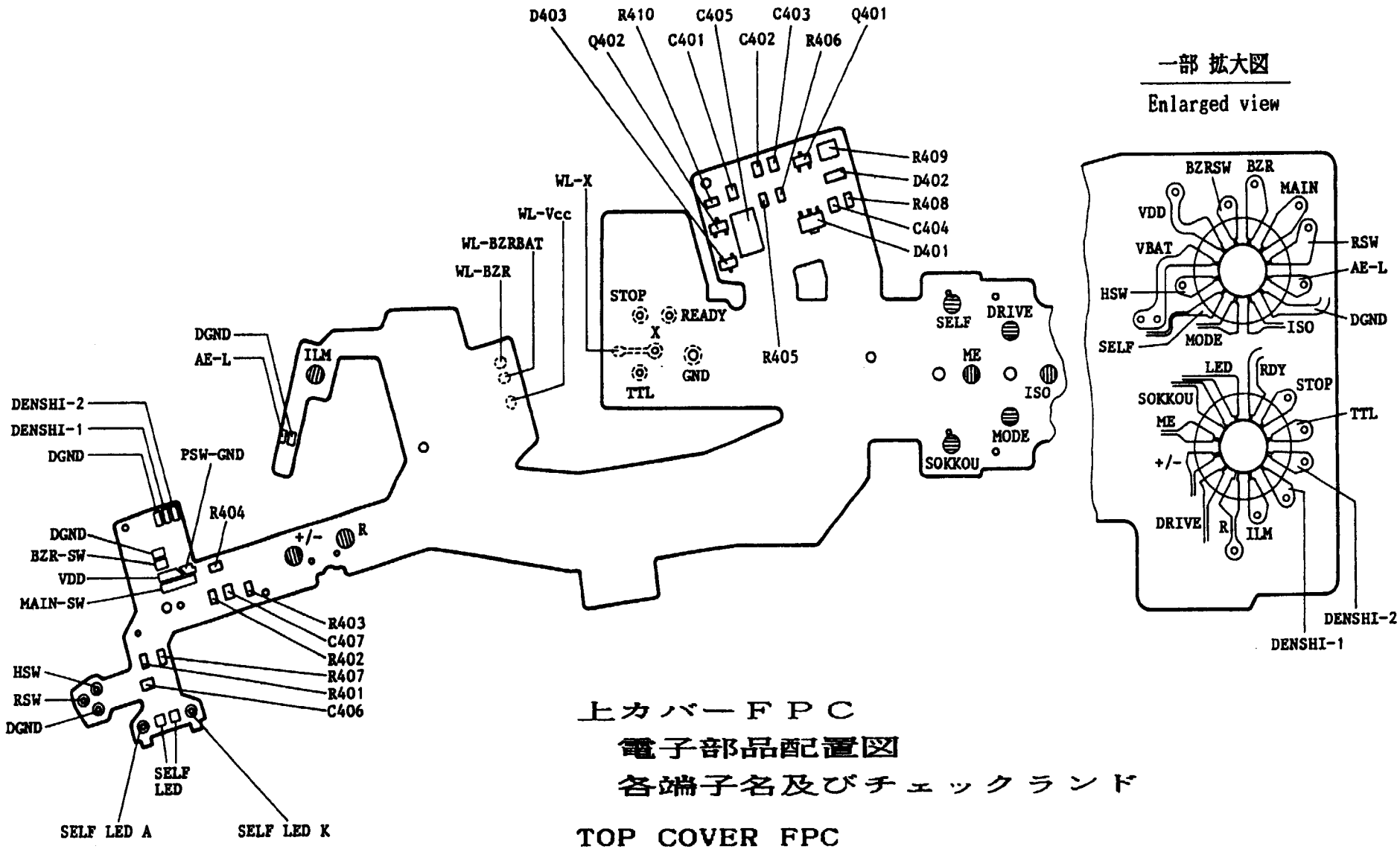
FAA22051－R.3241.A



# 回路図 CIRCUIT DIAGRAM

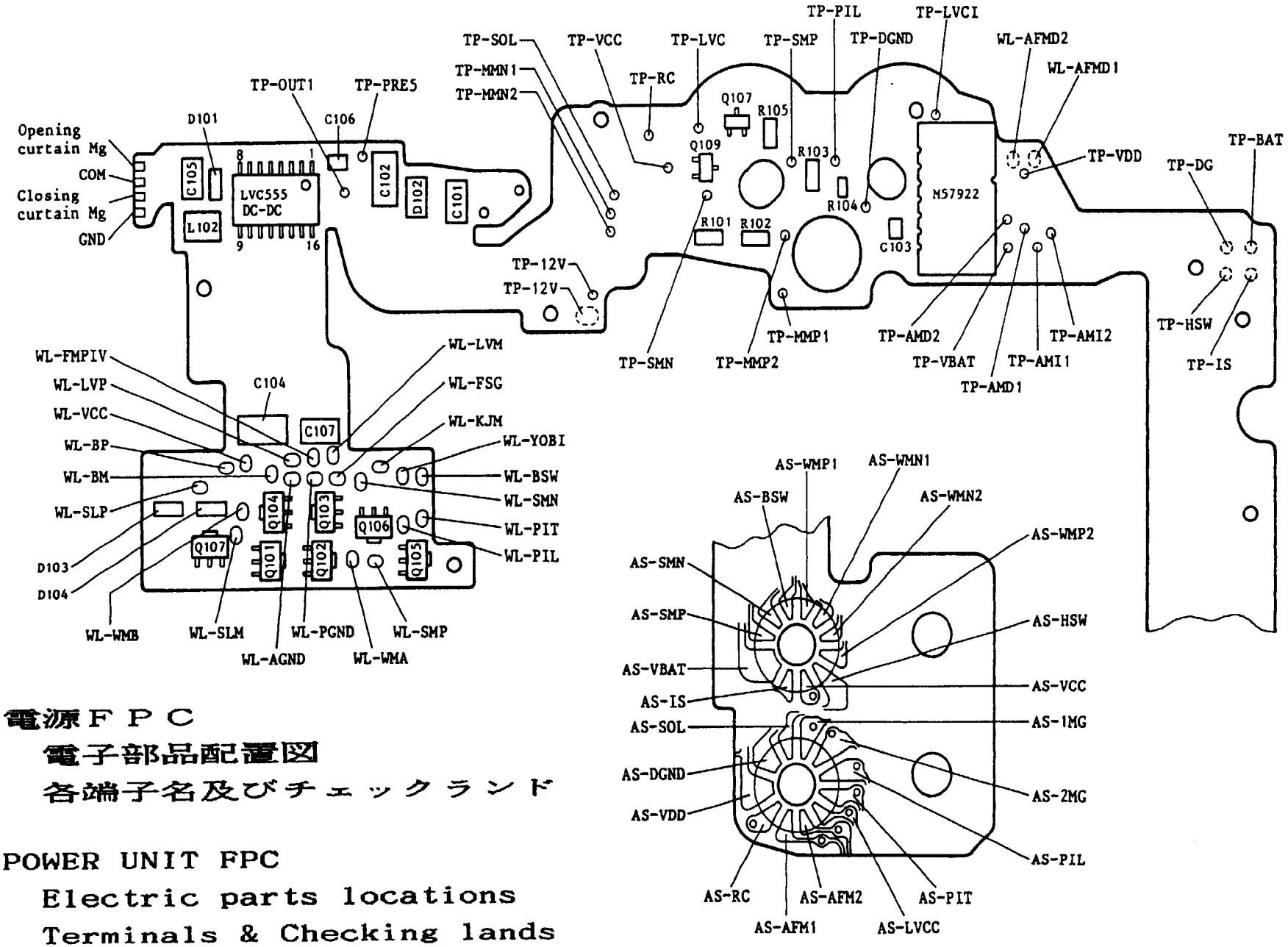



SELF SW
PRE-RELEASE SW
RELEASE SW
BUZZER SW
HOT SHOE ホットシュー Top View
Ready
CHOP
METERING MODE SW
BUZZER
MAIN SW
COMMAND INPUT CONTROL DIAL
ILM.SW
トカバーFPC TOP COVER FPC
ILLUMINATOR
FINDER LCD ファインダー内 LCD
AF・READY LED
SELF LED
M52921FP センサ I/F SEQUENCE I/F
HD4074418C シーケンスマイコン SEQUENCE MCU
HD61602H 液晶ドライバ LCD DRIVER
外部モニターLCD EXTERNAL LCD MONITOR
REMOTE
SOLENOID
FPC POWER SW FPC
フィルム給送モーター 停止SW SEQUENCE MOTOR STOP SW
MULTI SEGMENT SPD
M51063GP (M52922) METERING IC 測光IC
DBDX FPC
HD637805Z0H AF マイコン AF MCU
APERTURE MOTOR
FOCUS MODE SW
AF BASE PLATE FPC
AF MOTOR DRIVER AFモータードライバ
M52920FP AF I/F
IC-LVC555F-Z DC-DC
BAT
POWER SW FPC
SEQUENCE MOTOR シーケンスモーター
FILM MOTOR フィルムモーター
電池ホルダー電殻SW BATTERY HOLDER RELEASE SW
μPD3581K CCD
AP2FPC
FILM DETECTING SW
REF. SW
CAMERA BACK SW
POWER SW FPC
O.B. 黒色 D.B CONTACT DBDX FPC
SYNC. SW
CLOSING CURTAIN SW
シャッター SHUTTER
電源FPC黒色
電源FPC POWER SW FPC
DEPTH-OF-FIELD PREVIEW SW
AF A/M切り換えSW AF A/M SW
AF CONTACT
レンズ側AF FPC
AF CONTACT FPC




上カバーＦＰＣ
電子部品配置図
各端子名及びチェックランド

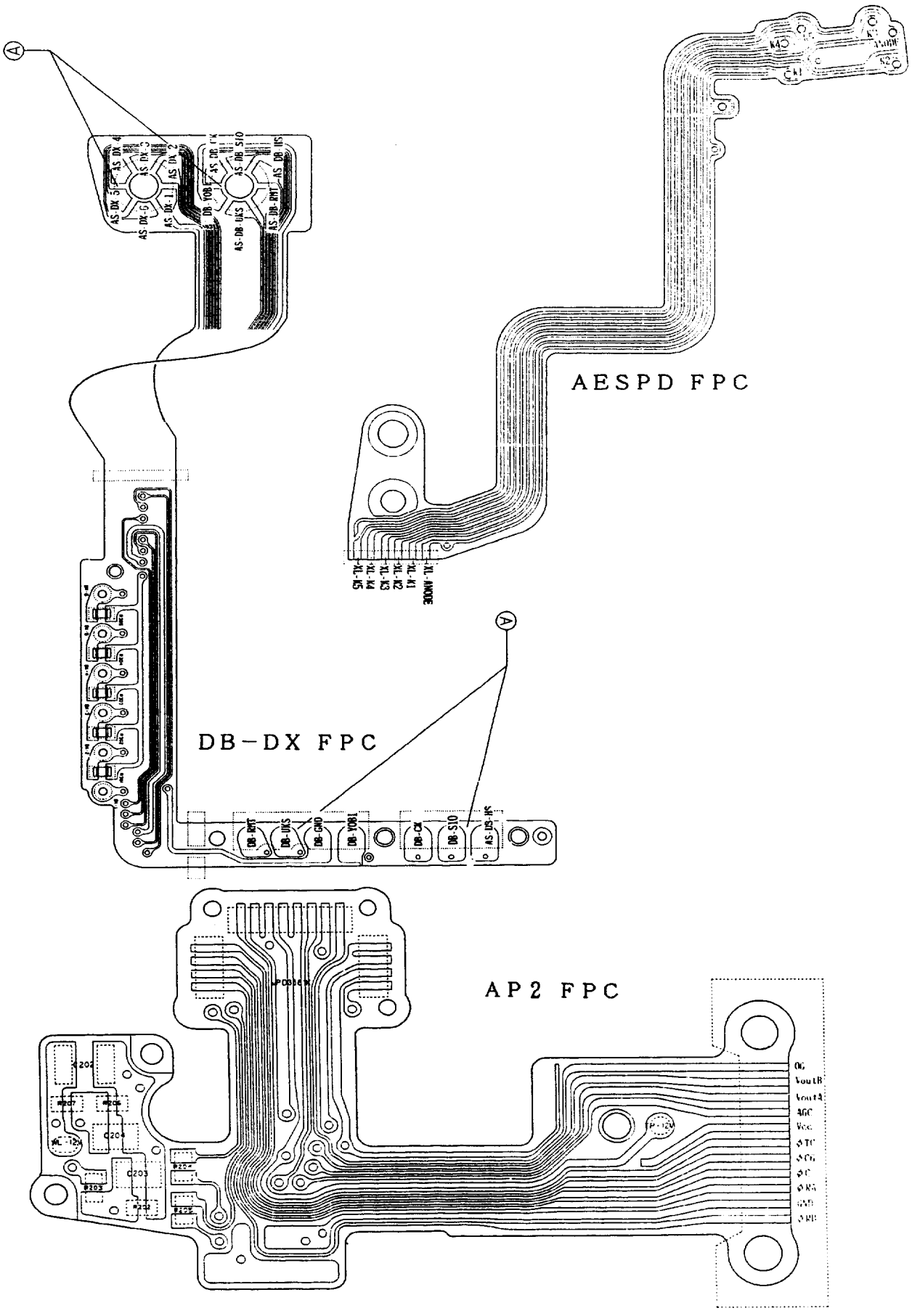
TOP COVER FPC
Electric parts locations
Terminals & Checking lands



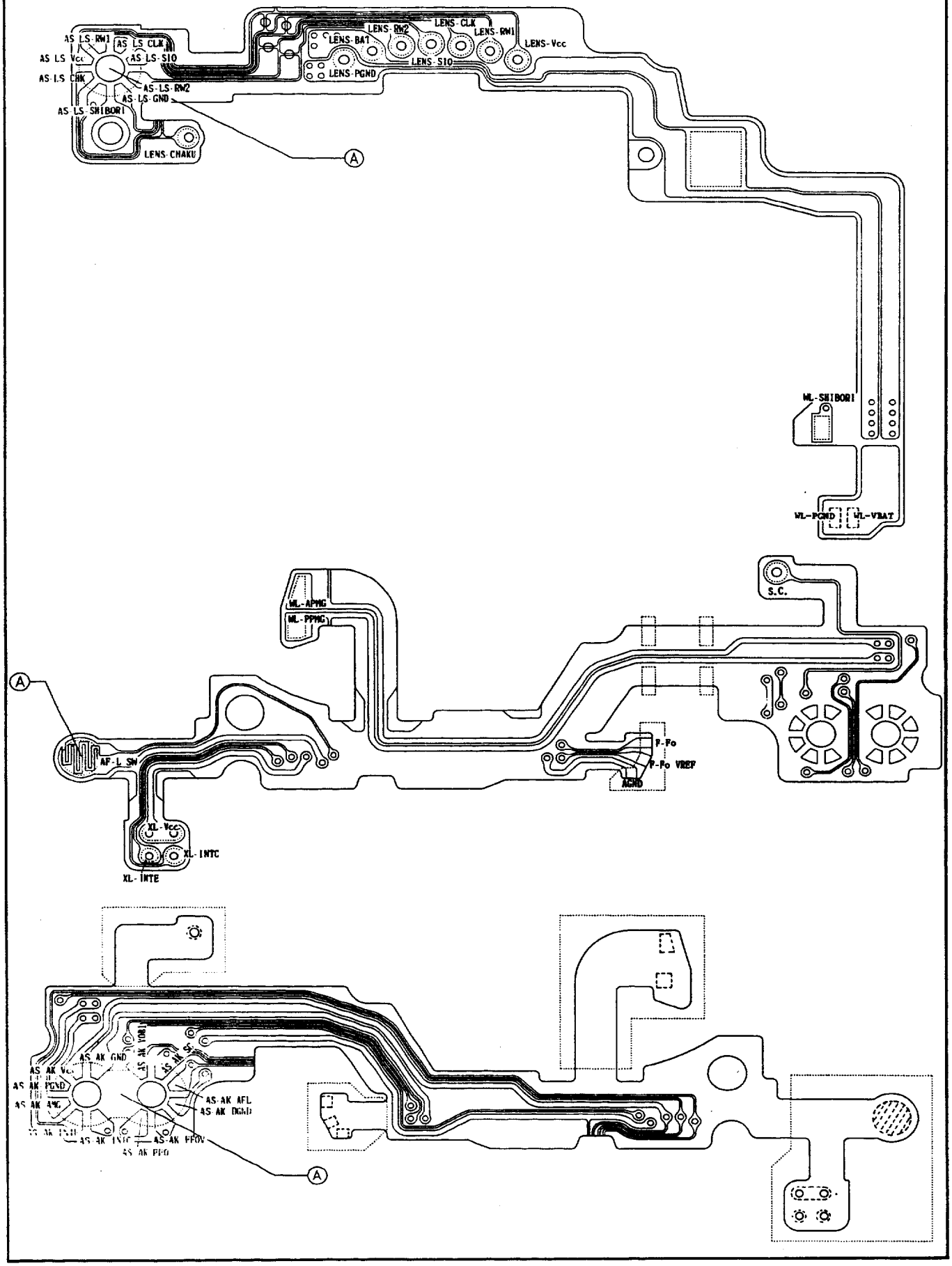

電源ＦＰＣ
電子部品配置図
各端子名及びチェックランド

POWER UNIT FPC
Electric parts locations
Terminals & Checking lands

Terminals & Checking lands



# AF CONTACT FPC & AF FPC Terminals & Checking lands



MAIN FPC CHECKING LANDS

| NO. | NAME | FUNCTION | NO. | NAME | FUNCTION |
|---|---|---|---|---|---|
| 1 | TP-1MG | OPENING CURTAIN SIG | 51 | TP-BZRSW | BUZZER SW |
| 2 | TP-1MHZ | 1MHZ CLOCK | 52 | TP-COM1 | LCD DRIVER COMMON 1 |
| 3 | TP-2MG | CLOSING CURTAIN SIG | 53 | TP-COM2 | LCD DRIVER COMMON 2 |
| 4 | TP-4MHZ | 4MHZ CLOCK | 54 | TP-DENSHI-1 | COMMAND DIAL SIG |
| 5 | TP-ACPU1 | AF MCU RESET | 55 | TP-DENSHI-2 | COMMAND DIAL SIG |
| 6 | TP-ACPU6 | WAKE UP 1 | 56 | TP-DG | DIGITAL GND |
| 7 | TP-ACPU18 | LENS/CPU COMMUNICATE | 57 | TP-DGND | DIGITAL GND |
| 8 | TP-ACPU19 | AGC STROBE SIG | 58 | TP-HAN | PRE-RELEASE SIG |
| 9 | TP-ACPU24 | VREF (ABSOLUTE TEMP.) | 59 | TP-ILM | ILLUMINATOR SIG |
| 10 | TP-ACPU25 | VREF (T PROPORTION) | 60 | TP-ILMSW | ILLUMINATOR SW |
| 11 | TP-ACPU26 | CCD OUTPUT | 61 | TP-IS | IS SIG |
| 12 | TP-ACPU29 | F-Fo (ANALOG INPUT) | 62 | TP-LCDSTBY | LCD STBY SIG |
| 13 | TP-ACPU31 | METERING OUTPUT | 63 | TP-LCF03 | INTERNAL LCD SEGMENT |
| 14 | TP-ACPU38 | MCU COMMUNICATE TRIG | 64 | TP-LCF04 | INTERNAL LCD SEGMENT |
| 15 | TP-ACPU49 | AFA/M SW | 65 | TP-LCF05 | INTERNAL LCD SEGMENT |
| 16 | TP-ACPU59 | (OPEN) | 66 | TP-LCF08 | INTERNAL LCD SEGMENT |
| 17 | TP-ACPU60 | AF MOTOR CONTROL SIG | 67 | TP-LCF12 | INTERNAL LCD SEGMENT |
| 18 | TP-ACPU61 | AF MOTOR CONTROL SIG | 68 | TP-LCF17 | INTERNAL LCD SEGMENT |
| 19 | TP-ACPU71 | CCDOG TERMINAL | 69 | TP-LCF18 | INTERNAL LCD SEGMENT |
| 20 | TP-AE-L | AE LOCK SW | 70 | TP-LCF19 | INTERNAL LCD SEGMENT |
| 21 | TP-AE16 | METERING AMP SW | 71 | TP-LCF22 | INTERNAL LCD SEGMENT |
| 22 | TP-AE30 | 063 A15AMP OUTPUT | 72 | TP-LCF23 | INTERNAL LCD SEGMENT |
| 23 | TP-AE31 | 063 A15AMP INPUT | 73 | TP-LCF24 | INTERNAL LCD SEGMENT |
| 24 | TP-AE37 | 063 A16AMP OUTPUT | 74 | TP-LCF28 | INTERNAL LCD SEGMENT |
| 25 | TP-AE39 | 063 A16AMP INPUT | 75 | TP-LCF29 | INTERNAL LCD SEGMENT |
| 26 | TP-AE40 | 063 A11AMP OUTPUT | 76 | TP-LCF31 | INTERNAL LCD SEGMENT |
| 27 | TP-AE41 | 063 A11AMP INPUT | 77 | TP-LCF32 | INTERNAL LCD SEGMENT |
| 28 | TP-AE42 | 063 A10AMP INPUT 2(+) | 78 | TP-LCF35 | INTERNAL LCD SEGMENT |
| 29 | TP-AE46 | 063 A10AMP INPUT 1(+) | 79 | TP-LCG03 | EXTERNAL LCD SEGMENT |
| 30 | TP-AE47 | 063 A10AMP INPUT (-) | 80 | TP-LCG04 | EXTERNAL LCD SEGMENT |
| 31 | TP-AE48 | 063 A9AMP OUTPUT | 81 | TP-LCG05 | EXTERNAL LCD SEGMENT |
| 32 | TP-AEOUT | METERING OUTPUT | 82 | TP-LCG06 | EXTERNAL LCD SEGMENT |
| 33 | TP-AF13 | DX4 | 83 | TP-LCG08 | EXTERNAL LCD SEGMENT |
| 34 | TP-AF14 | LENS S I/O | 84 | TP-LCG09 | EXTERNAL LCD SEGMENT |
| 35 | TP-AF22 | LATCH INPUT | 85 | TP-LCG16 | EXTERNAL LCD SEGMENT |
| 36 | TP-AF23 | LATCH INPUT | 86 | TP-LCG17 | EXTERNAL LCD SEGMENT |
| 37 | TP-AF24 | LATCH INPUT | 87 | TP-LCG21 | EXTERNAL LCD SEGMENT |
| 38 | TP-AF25 | LATCH INPUT | 88 | TP-LCG24 | EXTERNAL LCD SEGMENT |
| 39 | TP-AF26 | LATCH INPUT | 89 | TP-LCG28 | EXTERNAL LCD SEGMENT |
| 40 | TP-AF27 | LATCH INPUT | 90 | TP-LCG29 | EXTERNAL LCD SEGMENT |
| 41 | TP-AF28 | CHIP SELECT | 91 | TP-LCG30 | EXTERNAL LCD SEGMENT |
| 42 | TP-AF29 | CHIP SELECT | 92 | TP-LCG31 | EXTERNAL LCD SEGMENT |
| 43 | TP-AF30 | STROBE SIG | 93 | TP-LCG32 | EXTERNAL LCD SEGMENT |
| 44 | TP-AF34 | INTERRUPTER OUTPUT | 94 | TP-LCG35 | EXTERNAL LCD SEGMENT |
| 45 | TP-APMGB | APT MG BASE | 95 | TP-LCG36 | EXTERNAL LCD SEGMENT |
| 46 | TP-APMGC | APT MG COLLECTOR | 96 | TP-LCG37 | EXTERNAL LCD SEGMENT |
| 47 | TP-AVCC | ANALOG 5V | 97 | TP-LCG38 | EXTERNAL LCD SEGMENT |
| 48 | TP-AVINTE | APT INTERRUPTER E | 98 | TP-LCG39 | EXTERNAL LCD SEGEMNT |
| 49 | TP-AVINTK | APT INTERRUPTER K | 99 | TP-LCG40 | EXTERNAL LCD SEGMENT |
| 50 | TP-BZR | BUZZER SIG | 100 | TP-LCG41 | EXTERNAL LCD SEGMENT |

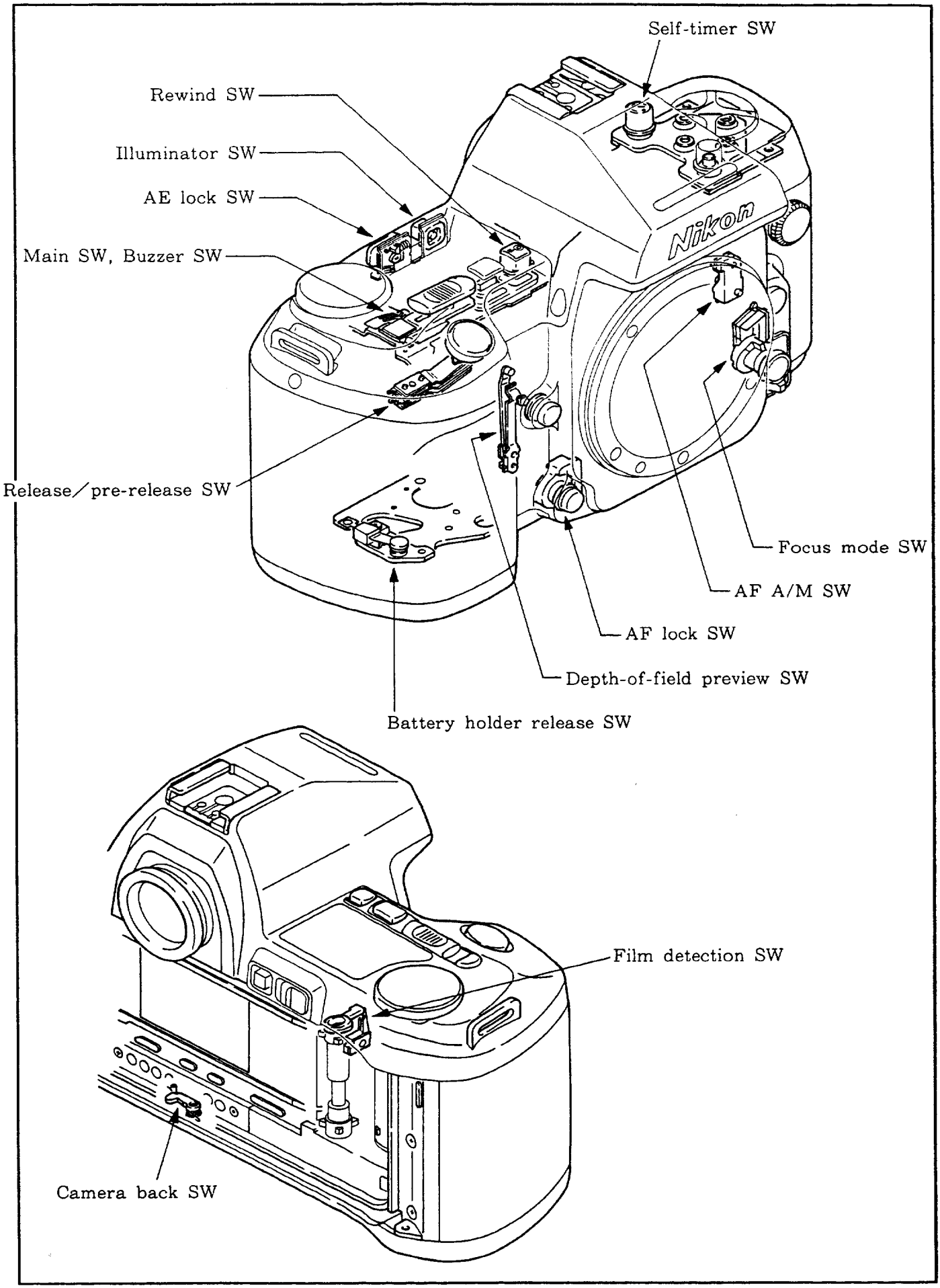
| NO. | NAME | FUNCTION | NO. | NAME | FUNCTION |
|---|---|---|---|---|---|
| 101 | TP-LCG42 | EXTERNAL LCD SEGMENT | 151 | TP-SMDN | SQ MOTOR DRIVING SIG |
| 102 | TP-LCG43 | EXTERNAL LCD SEGMENT | 152 | TP-SMDP | SQ MOTOR DRIVING SIG |
| 103 | TP-LCG44 | EXTERNAL LCD SEGMENT | 153 | TP-SQMG | SOLENOID SIG |
| 104 | TP-LCG46 | EXTERNAL LCD SEGMENT | 154 | TP-STOPC | STOPC |
| 105 | TP-LCG47 | EXTERNAL LCD SEGMENT | 155 | TP-TTL | TTL SIG |
| 106 | TP-LCG48 | EXTERNAL LCD SEGMENT | 156 | TP-VBAT | BATTERY VOLTAGE |
| 107 | TP-LCG49 | EXTERNAL LCD SEGMENT | 157 | TP-VBAT | BATTERY VOLTAGE |
| 108 | TP-LCG50 | EXTERNAL LCD SEGMENT | 158 | TP-VDD | DIGITAL 5V |
| 109 | TP-LCLK | LCD CLOCK SIG | 159 | TP-VDD | DIGITAL 5V |
| 110 | TP-LCRDY | LCD READY SIG | 160 | TP-VDD1 | DIGITAL 5V |
| 111 | TP-LCRE | LCD LEAD SIG | 161 | TP-VDD2 | DIGITAL 5V |
| 112 | TP-LCVRF1 | LCD VREF | 162 | TP-VDDSW | MAIN SW |
| 113 | TP-LCWE | LCD LIGHT SIG | 163 | | |
| 114 | TP-LRW1 | LENS R/W1 SIG | 164 | | |
| 115 | TP-LRW2 | LENS R/W2 SIG | 165 | | |
| 116 | TP-LSIO | LENS S I/O SIG | 166 | | |
| 117 | TP-MCPU1 | DRIVE SW | 167 | | |
| 118 | TP-MCPU25 | EEPROM SCK | 168 | | |
| 119 | TP-MCPU26 | EEPROM DO | 169 | | |
| 120 | TP-MCPU32 | EEPROM D1 | 170 | | |
| 121 | TP-MCPU32 | PRE-RELEASE SW | 171 | WL-AFINTE | AF INTERRUPTER E |
| 122 | TP-MCPU33 | LCD DRIVER DATA LINE | 172 | WL-AFINTK | AF INTERRUPTER K |
| 123 | TP-MCPU34 | LCD DRIVER DATA LINE | 173 | WL-AGND | ANALOG GND |
| 124 | TP-MCPU35 | LCD DRIVER DATA LINE | 174 | WL-ATOMAKU | CLOSING CURTAIN SW |
| 125 | TP-MCPU36 | LCD DRIVER DATA LINE | 175 | WL-CCDV01 | CCD OUTPUT SIG |
| 126 | TP-MCPU37 | LCD DRIVER DATA LINE | 176 | WL-CHARGE | SQ MOTOR STOP SW |
| 127 | TP-MCPU38 | LCD DRIVER DATA LINE | 177 | WL-DGND | DIGITAL GND |
| 128 | TP-MCPU39 | LCD DRIVER DATA LINE | 178 | WL-FILMZAIHI | FILM DETECTION SW |
| 129 | TP-MCPU40 | LCD DRIVER DATA LINE | 179 | WL-ILMA | ILLUMINATOR ANODE |
| 130 | TP-MCPU54 | MCU COMMUNICATE LINE | 180 | WL-ILMK | ILLUMINATOR CATHODE |
| 131 | TP-MMDN1 | FILM MOTOR DRIVE SIG | 181 | WL-ILMPG | ILLUMINATOR POWER GND |
| 132 | TP-MMDN2 | FILM MOTOR DRIVE SIG | 182 | WL-KIJUN | REF. SW |
| 133 | TP-MMDP1 | FILM MOTOR DRIVE SIG | 183 | WL-LCDR95 | (3V) LCD STROBE SIG 2 |
| 134 | TP-MMDP2 | FILM MOTOR DRIVE SIG | 184 | WL-LCDSTB | (3V) LCD STROBE SIG 1 |
| 135 | TP-CSC2 | 8MHZ OSCILLATOR | 185 | WL-LCSB1 | (3V) LCD STROBE SIG 1 |
| 136 | TP-PI1K | APT INTERRUPTER K | 186 | WL-LCSB2 | (3V) LCD STROBE SIG 2 |
| 137 | TP-PI2K | FILM INTERRUPTER K | 187 | WL-PGND1 | POWER GND |
| 138 | TP-PIE | A & F INTERRUPTER K | 188 | WL-PGND2 | POWER GND |
| 139 | TP-RC | DC/DC CNTRL TERMINAL | 189 | WL-RDYK | READY LED K |
| 140 | TP-RCSIG | DC/DC CNTRL SIG | 190 | WL-RSTG | BY-PASS CONDENSER GND |
| 141 | TP-RESET | SQ MCU RESET | 191 | WL-SYNC | SYNC SW |
| 142 | TP-RESETC | RESETC | 192 | WL-TTLA | TTL SPD ANODE |
| 143 | TP-RLSSW | RELEASE SW | 193 | WL-TTLK | TTL SPD CATHODE |
| 144 | TP-RMT | REMOTE SIG | 194 | WL-URABUTA | CAMERA BACK SW |
| 145 | TP-RWSW | REWIND SW | 195 | WL-VCC1 | ANALOG 5V |
| 146 | TP-SB39 | SELF-TIMER SW | 196 | WL-VCC2 | ANALOG 5V |
| 147 | TP-SB40 | MODE SELECTOR SW | 197 | WL-VCC3 | ANALOG 5V |
| 148 | TP-SB41 | ISO SETTING SW | 198 | WL-XTRIG | X TRIGGER SW |
| 149 | TP-SB54 | STROBE SIG | 199 | | |
| 150 | TP-SHIBORI | PREVIEW SW | 200 | | |

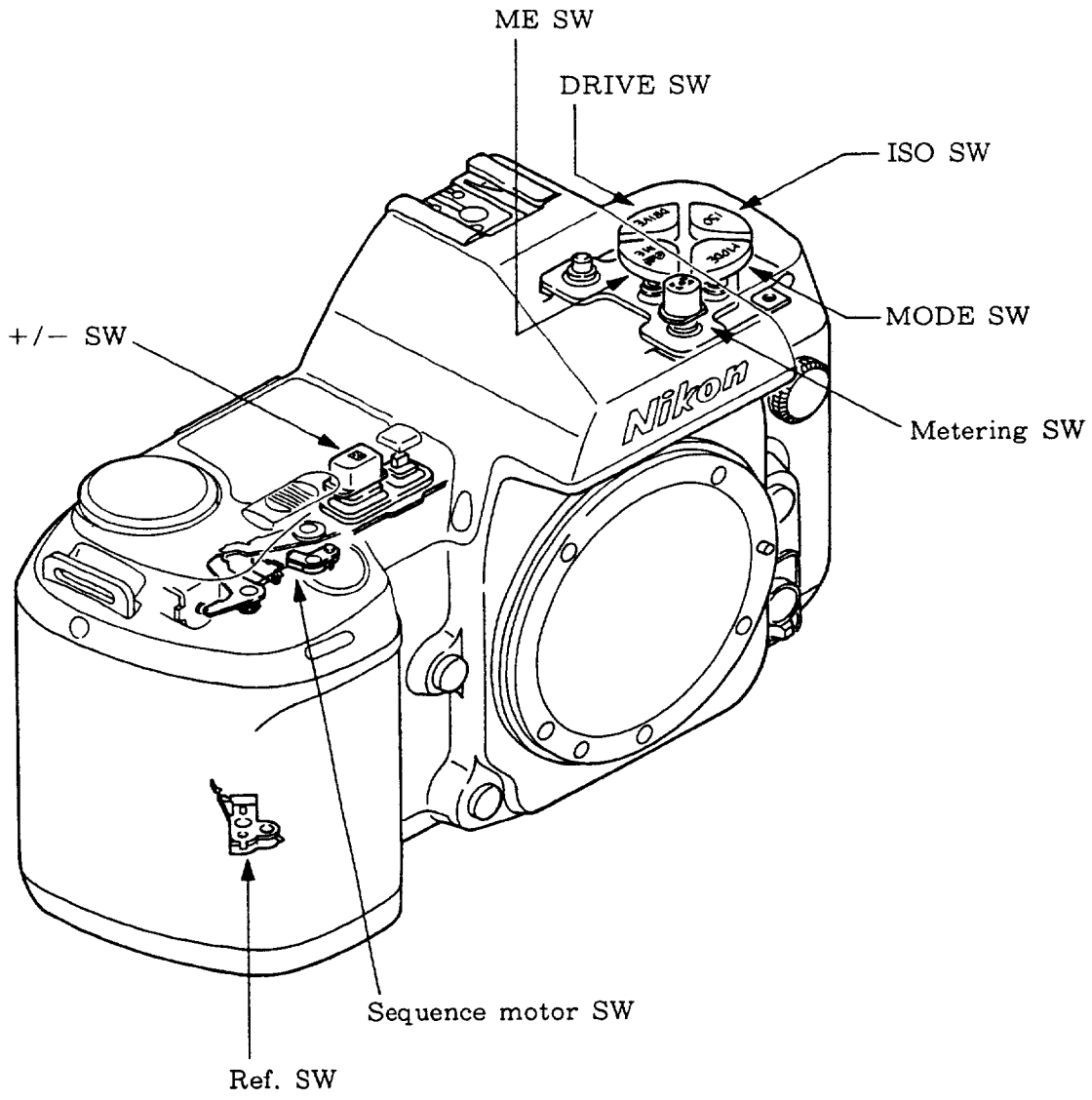
| NO. | NAME | FUNCTION | NO. | NAME | FUNCTION |
|---|---|---|---|---|---|
| 201 | AS-+/- | COMPENSATION SIG SW | 251 | XL-LCSB | SLDR-BRIDGE FOR 5V LCD |
| 202 | AS-AE-L | AE LOCK SW | 252 | XL-SPDA | METERING SPD ANODE |
| 203 | AS-AGC | AGC SIG | 253 | XL-SPDK1 | METERING SPD CATHODE 1 |
| 204 | AS-BZR | BUZZER SIG | 254 | XL-SPDK2 | METERING SPD CATHODE 2 |
| 205 | AS-BZRSW | BUZZER SW | 255 | XL-SPDK3 | METERING SPD CATHODE 3 |
| 206 | AS-CCDOG | CCDOG SIG | 256 | XL-SPDK4 | METERING SPD CATHODE 4 |
| 207 | AS-DB-CK | DATA BACK CLK | 257 | XL-SPDK5 | METERING SPD CATHODE 5 |
| 208 | AS-DB-HS | DATA BACK HS | 258 | | |
| 209 | AS-DB-RMT | DATA BACK RMT | 259 | | |
| 210 | AS-DB-SIO | DATA BACK SIO | 260 | | |
| 211 | AS-DB-UKS | DATA BACK IMPRINT | 261 | | |
| 212 | AS-DB-YOBI | DATA BACK VCC | 262 | | |
| 213 | AS-DENSHI-1 | COMMAND DIAL SIG | 263 | | |
| 214 | AS-DENSHI-2 | COMMAND DIAL SIG | 264 | | |
| 215 | AS-DGND | DIGITAL GND | 265 | | |
| 216 | AS-DGND | DIGITAL GND | 266 | | |
| 217 | AS-DRIVE | DRIVE SW | 267 | | |
| 218 | AS-DX-1 | DX CONTACT GND | 268 | | |
| 219 | AS-DX-2 | DX CONTACT 2 | 269 | | |
| 220 | AS-DX-3 | DX CONTACT 3 | 270 | | |
| 221 | AS-DX-4 | DX CONTACT 4 | 271 | | |
| 222 | AS-DX-5 | DX CONTACT 5 | 272 | | |
| 223 | AS-DX-6 | DX CONTACT 6 | 273 | | |
| 224 | AS-HAN | PRE-RELEASE SW | 274 | | |
| 225 | AS-ILM | ILLUMINATOR SW | 275 | | |
| 226 | AS-ISO | ISO SETTING SW | 276 | | |
| 227 | AS-LED | SELF-TIMER LED SIG | 277 | | |
| 228 | AS-MAIN | MAIN SW | 278 | | |
| 229 | AS-ME | MULTIPLE EXPOSURE SW | 279 | | |
| 230 | AS-MODE | MODE SELECTOR SW | 280 | | |
| 231 | AS-R | REWIND SW | 281 | | |
| 232 | AS-RDY | READY LED SIG | 282 | | |
| 233 | AS-RSW | RELEASE SW | 283 | | |
| 234 | AS-SELF | SELF-TIMER SW | 284 | | |
| 235 | AS-SOKKOU | METERING SELECTION SW | 285 | | |
| 236 | AS-STOP | TTL STOP SIG | 286 | | |
| 237 | AS-TC | CCD DRIVING SIG | 287 | | |
| 238 | AS-TCG | CCD DRIVING SIG | 288 | | |
| 239 | AS-TRA | CCD DRIVING SIG | 289 | | |
| 240 | AS-TRB | CCD DRIVING SIG | 290 | | |
| 241 | AS-TTG | CCD DRIVING SIG | 291 | | |
| 242 | AS-TTL | TTL SIG | 292 | | |
| 243 | AS-VAOUT | CCDA LINE OUTPUT | 293 | | |
| 244 | AS-VBAT | BATTERY VOLTAGE | 294 | | |
| 245 | AS-VBOUT | CCDB LINE OUTPUT | 295 | | |
| 246 | AS-VDD | DIGITAL 5V | 296 | | |
| 247 | AS-YOBI | (OPEN) | 297 | | |
| 248 | | | 298 | | |
| 249 | | | 299 | | |
| 250 | | | 300 | | |

TP: CHECKING LAND  WL: SOLDER LAND
AS: PRESS-CONTACT LAND  XL: SPECIAL LAND

SWITCHES

| NAME | POSITION | OPERATION |
|---|---|---|
| Release/pre-release SW | Top cover<br>Top cover FPC | Two-step SW 1st step: Pre-release SW ON<br>2nd step: Release SW ON |
| Self-timer SW | Top cover<br>Top cover FPC | The SW turns on to activate self-timer operation when the self-timer button is depressed. |
| AE lock SW | Top cover<br>Top cover FPC | When the AE lock button is depressed, the SW turns on and the light metering value is memorized. |
| AF lock SW | Front side of front body<br>AF base plate<br>FPC | When the AF lock button is depressed, the SW turns on and focus is locked. |
| Rewind SW | Top cover<br>Top cover FPC | When the rewind button and ME/Rewind button are depressed at the same time, the SW turns on and film rewind starts. |
| AF A/M SW | AF contact FPC | When the lens release button is depressed, the SW turns off and AF mode is switched to M. |
| Depth-of-field preview SW | AF contact FPC | When the depth-of-field preview button is depressed, the SW turns off and shutter locks. |
| Illuminator SW | Top cover<br>Top cover FPC | When the viewfinder illumination button is depressed, the SW turns on and the viewfinder LCD display is illuminated. |
| Main SW,<br>Buzzer SW | Top cover<br>Top cover FPC | When the main SW turns on, shooting becomes possible. If the SW is set to ■)), beeper can sound. |
| Camera back SW | Rear body | The SW turns on when the camera back is closed. When the SW is off, shutter locks Except M 1/250 shutter speed setting. |
| Focus mode SW | Front side of front body<br>AF base plate<br>FPC | Focus mode selector SW<br>M: Manual mode (Focus aid)<br>S: Single AF mode<br>C: Continuous AF mode |
| Film detection SW | Sprocket | When a film is loaded, the SW turns on. |
| Battery holder release SW | Bottom of camera | When batteries are installed, the SW turns off and Power-Reset is executed. |


Self-timer SW
Rewind SW
Illuminator SW
AE lock SW
Main SW, Buzzer SW
Release/pre-release SW
Focus mode SW
AF A/M SW
AF lock SW
Depth-of-field preview SW
Battery holder release SW
Film detection SW
Camera back SW
Nikon


ME SW
DRIVE SW
ISO SW
MODE SW
+/− SW
Metering SW
Nikon
Sequence motor SW
Ref. SW

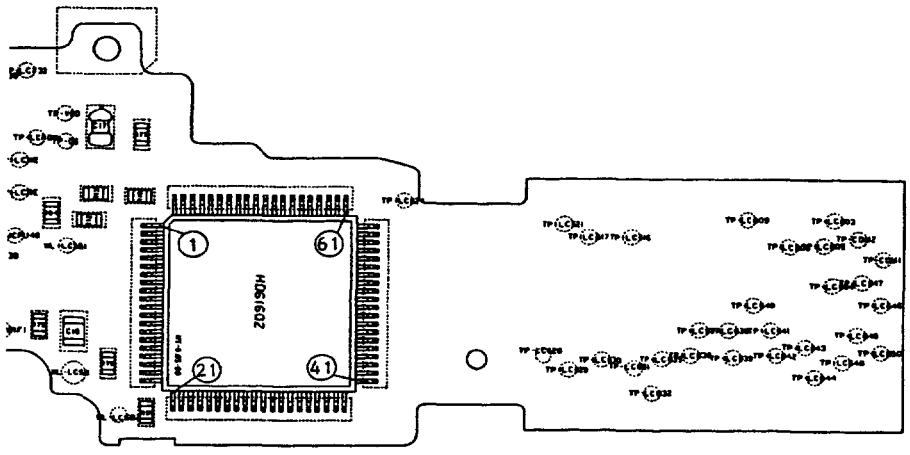
SWITCHES OPERATED BY COMMAND DIAL

| NAME | POSITION | OPERATION |
|---|---|---|
| +/- SW | Top cover<br>Top cover FPC | When the +/- button is depressed, the SW turns on and the exposure compensation value is set with the command dial. |
| ME SW | Top cover<br>Top cover FPC | When the ME button is depressed, the SW turns on and the number of frame for multiple-exposure is set with the command dial. |
| Metering SW | Top cover<br>Top cover FPC | When the metering system selection button is depressed, the SW turns on and multi-pattern metering or center-weighted metering can be selected with the command dial. |
| DRIVE SW | Top cover<br>Top cover FPC | When the DRIVE button is depressed, the SW turns on. S (Single frame), CL (Continuous Low) or CH (Continuous High) mode can be selected with the command dial. |
| MODE SW | Top cover<br>Top cover FPC | When the MODE button is depressed, the SW turns on. P(standard programmed auto), PH (high-speed programmed auto), PD (dual programmed auto), A (aperture-priority auto) S (Shutter-priority auto) or M (manual) mode can be selected with the command dial. |
| ISO SW | Top cover<br>Top cover FPC | When the ISO button is depressed, the SW turns on and ISO film speed can be set with the command dial. DX mode can also be selected with the command dial. |

SWITCHES WHICH CANNOT BE OPERATED FROM OUTSIDE

| NAME | POSITION | OPERATION |
|---|---|---|
| Closing curtain SW | Shutter base base plate | The SW turns on when the closing shutter curtain's traveling is completed, and turns off while the shutter is charged. (Used to see the phase of mechnism) |
| Ref. SW | Rear body | The SW works as a reference to control the film advance quantity. (The SW turns off once per frame.) |
| Sequence motor stop SW | Front side of rear body | The SW shows the timing that Mirror-up and Shutter charge are completed. The sequence motor stops when the SW turns on. |
| Sync. SW | Shutter base plate | The SW turns on when the shutter is fully opened. |

# LCD-Dr
## HD61602H



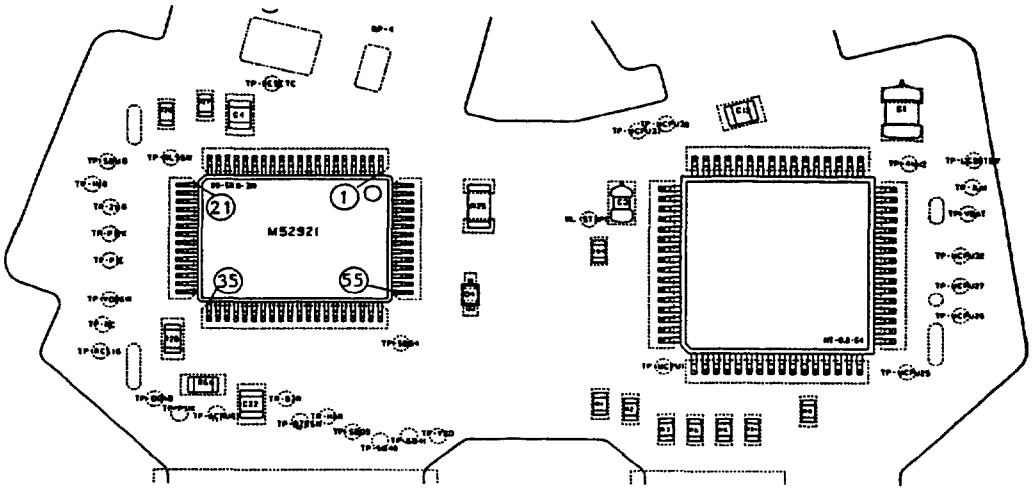

| Pin | Terminal | I/O | Function & Connected part |
|---|---|---|---|
| 1 | CS | I | D-GND |
| 2 | WE | I | SQ-MCU(47) |
| 3 | RE | I | SQ-MCU(46) |
| 4 | SB | I | SQ-I/F(16, LCD stby) |
| 5 | D7 | I | SQ-MCU(40) |
| 6 | D6 | I | SQ-MCU(39) |
| 7 | D5 | I | SQ-MCU(38), SQ-I/F(47, D5) |
| 8 | D4 | I | SQ-MCU(37), SQ-I/F(48, D4) |
| 9 | Vss | | D-GND |
| 10 | D3 | I | SQ-MCU(36), SQ-I/F(49, D3) |
| 11 | D2 | I | SQ-MCU(35), SQ-I/F(50, D2) |
| 12 | D1 | I | SQ-MCU(34), SQ-I/F(51, D1) |
| 13 | D0 | I | SQ-MCU(33), SQ-I/F(53, D0) |
| 14 | VREF1 | O | LCD-Dr(18) |
| 15 | VREF2 | I | VDD |
| 16 | VC2 | | N. C |
| 17 | VC1 | | N. C |
| 18 | V1 | I/O | LCD-Dr(14) |
| 19 | V2 | I/O | LCD-Dr(20) |
| 20 | V3 | I/O | LCD-Dr(19) |
| 76 | SYNC | I | D-GND |
| 77 | OSC2 | O | R77 |
| 78 | OSC1 | I | |
| 79 | VDD | | VDD |
| 80 | READY | O | SQ-MCU(48) |

| Pin | Terminal | Connected LCD Terminal | |
|---|---|---|---|
| | | Viewfinder LCD | External LCD |
| 21 | COM0 | 1 | 1 |
| 22 | COM1 | 2 | 2 |
| 23 | COM2 | – – | – – |
| 24 | COM3 | – – | – – |
| 25 | SEG50 | 5 | 11 |
| 26 | SEG49 | 6 | 10 |
| 27 | SEG48 | 7 | 8 |
| 28 | SEG47 | 8 | 7 |
| 29 | SEG46 | 9 | 6 |
| 30 | SEG45 | 10 | 5 |
| 31 | SEG44 | 11 | 4 |
| 32 | SEG43 | 15 | 47 |
| 33 | SEG42 | 16 | 46 |
| 34 | SEG41 | 17 | 45 |
| 35 | SEG40 | 19 | 34 |
| 36 | SEG39 | 24 | 33 |
| 37 | SEG38 | 25 | 32 |
| 38 | SEG37 | 26 | 31 |
| 39 | SEG36 | 27 | 30 |
| 40 | SEG35 | 20 | 29 |
| 41 | SEG34 | 21 | 28 |
| 42 | SEG33 | 22 | 27 |
| 43 | SEG32 | 23 | 26 |
| 44 | SEG31 | | 35 |
| 45 | SEG30 | | 36 |
| 46 | SEG29 | | 37 |
| 47 | SEG28 | | 38 |
| 48 | SEG27 | | 39 |
| 49 | SEG26 | | 40 |
| 50 | SEG25 | | 41 |
| 51 | SEG24 | | 42 |
| 52 | SEG23 | | 43 |
| 53 | SEG22 | | 44 |

| Pin | Terminal | Connected LCD Terminal | |
|---|---|---|---|
| | | Viewfinder LCD | External LCD |
| 54 | SEG21 | | 48 |
| 55 | SEG20 | | 49 |
| 56 | SEG19 | | 50 |
| 57 | SEG18 | | 3 |
| 58 | SEG17 | | 9 |
| 59 | SEG16 | | 16 |
| 60 | SEG15 | | 17 |
| 61 | SEG14 | | 21 |
| 62 | SEG13 | 13 | 12 |
| 63 | SEG12 | 12 | 13 |
| 64 | SEG11 | 14 | 14 |
| 65 | SEG10 | 35 | 15 |
| 66 | SEG 9 | 30 | 18 |
| 67 | SEG 8 | 29 | 19 |
| 68 | SEG 7 | 28 | 20 |
| 69 | SEG 6 | 31 | 22 |
| 70 | SEG 5 | 33 | 23 |
| 71 | SEG 4 | 34 | 24 |
| 72 | SEG 3 | 32 | 25 |
| 73 | SEG 2 | 18 | |
| 74 | SEG 1 | 4 | |
| 75 | SEG 0 | 3 | |

# SQ-I/F
## M52921FP

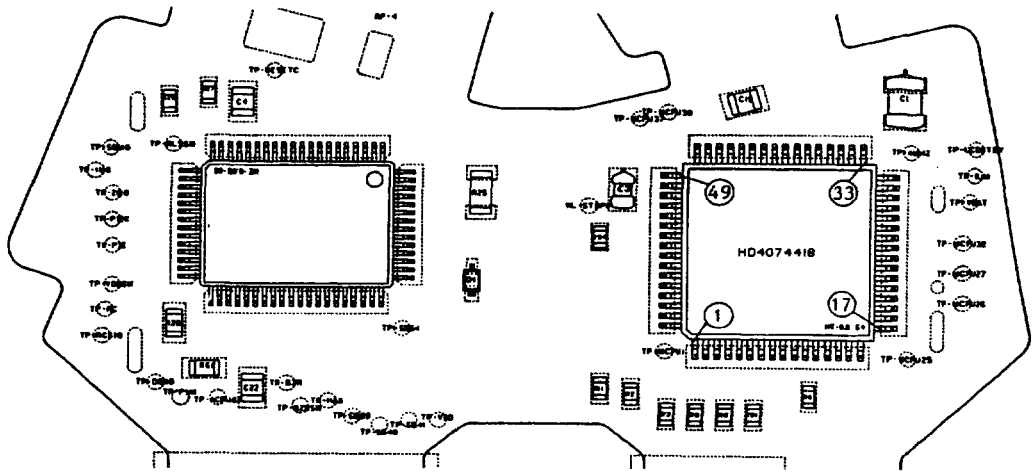
A: Analog signal
Da:Digital signal which has three shapes or more
D:Digital signal
AD: Analog/digital signal
N.C: Open
SQ-MD: Sequence motor
FM-MD: Film advance motor
PI: Photo interrupter




| Pin | Terminal | AD | IO | Function & Connected part |
|---|---|---|---|---|
| 1 | RDYLED | D | O | To actuate ready-light LED |
| 2 | BAT | A | I | Battery voltage for power step always supplied |
| 3 | SMPp | D | O | SQ-MD Drive: Q105 |
| 4 | SMDr | D | O | SQ-MD Resitor for current limit: Q105 |
| 5 | SMDn | D | O | SQ-MD Drive: Q106 |
| 6 | Bat rls SW | | | N. C |
| 7 | $\overline{\text{Wake Up 1}}$ | D | O | Start signal: AF-MCU (7) |
| 8 | $\overline{\text{Wake Up 2}}$ | | | N. C |
| 9 | Reset C | D | I | Power-on-reset: Battery holder rls SW |
| 10 | MMDp 1 | D | O | FM-MD Drive: Q101 |
| 11 | MMDn 1 | D | O | FM-MD Drive: Q103 |
| 12 | PGND | D | IO | GND of power output |
| 13 | MMDn 2 | D | O | FM-MD Drive: Q104 |
| 14 | MMDp 2 | D | O | FM-MD Drive: Q102 |
| 15 | 1MHz | D | I | 1MHz ref. clock: AF-I/F (41) |
| 16 | LCD stby | D | O | LCD-Dr mode control: LCD-Dr (4) |
| 17 | $\overline{\text{RESET}}$ | D | O | Power-on-reset AF-MCU: AF-MCU (1) |
| 18 | GND | AD | IO | GND |
| 19 | X-trig | D | O | To actuate X-SCR trigger circuit: Q401 |
| 20 | Release sw | D | O | Release signal (remote): SQ-MCU (60) |
| 21 | Remote | Da | I | To detect state of remote terminal |
| 22 | ILM | D | O | To light up LCD illuminator lamp: Q6 |
| 23 | SQ-Mg sig | D | O | To actuate solenoid: Q107 |
| 24 | 1Mg | D | O | To drive opening curtain Mg |
| 25 | 2Mg | D | O | To drive closing curtain Mg |
| 26 | AP-Mg sig | D | O | To actuate aperture Mg: Q1 |
| 27 | PI1K | D | O | To actuate aperture PI.LED |
| 28 | PI2K | D | O | To actuate film adv. PI.LED |
| 29 | PIE | A | I | To input pulses from apt. & FM PI (17) |
| 30 | E pulse | D | O | To output shaped encoder pulse: SQ-MCU |
| 31 | VDD | A | I | Batt power for logic always supplied |
| 32 | VDD SW | A | I | Batt power supplied when main SW is ON |
| 33 | RC | D | O | To drive control terminal of DC-DC: DC-DC (7) |
| 34 | RS sig | D | I | DC-DC control sig: AF-MCU (42) |
| 35 | Buzzer | D | O | To actuate buzzer |
| 36 | Buzzer SW | D | I | To detect buzzer SW |

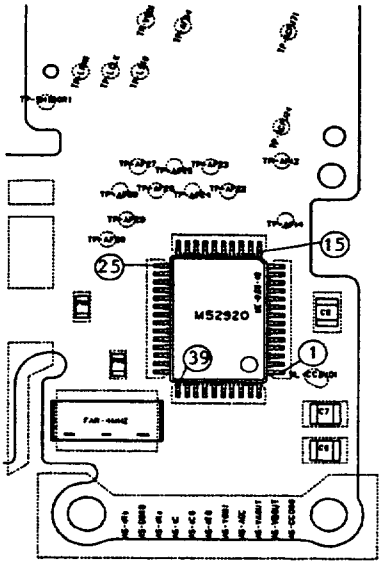
| Pin | Terminal | AD | IO | Function & Connected part |
|---|---|---|---|---|
| 37 | SB pre-release sw | D | O | To transmit power start command from SB to SQ-MCU: SQ-MCU (28) |
| 38 | Start SW1 | D | I | To detect pre-release SW, To start Vcc |
| 39 | Start SW1 | D | I | Self-timer SW |
| 40 | Start SW2 | D | I | MODE SW |
| 41 | Start SW3 | D | I | ISO SW |
| 42 | Start SW4 | D | I | DRIVE SW |
| 43 | Start SW5 | D | I | Compensation SW |
| 44 | Start SW6 | D | I | ME SW |
| 45 | Start SW7 | D | I | Metering mode SW |
| | | | | To detect each switch and start Vcc |
| 46 | CS | D | I | Chip select: SQ-MCU (61) |
| 47 | D5 | D | I | Decoder input bit 5: SQ-MCU (38) |
| 48 | D4 | D | I | Decoder input bit 4: SQ-MCU (37) |
| 49 | D3 | D | I | Decoder input bit 3: SQ-MCU (36) |
| 50 | D2 | D | I | Decoder input bit 2: SQ-MCU (35) |
| 51 | D1 | D | I | Decoder input bit 1: SQ-MCU (34) |
| 52 | GND | AD | IO | GND |
| 53 | D0 | D | I | Decoder input bit 0: SQ-MCU (33) |
| 54 | Strobe | D | I | Latch timing signal of decoder: SQ-MCU(57) |
| 55 | Vcc | A | I | General battery power supplied in pre-release timer |
| 56 | TTL | Da | IO | To control flash serial I/O<br>To detect TTL mode: Monitor terminal |
| 57 | IS sig | D | O | To start integration in sunc. circuit: Metering IC (26) |
| 58 | SC | D | IO | Control bit serial I/O with SQ-MCU: SQ-MCU(58) |
| 59 | DBSC | D | IO | Control bit of serial I/O with DB: DB-HS terminal |
| 60 | DBSIO | D | IO | Data I/O of serial I/O with DB:DB-SIO terminal |
| 61 | SO | D | O | Data output of serial I/O with SQ-MCU:SQ-MCU(21) |
| 62 | SI | D | I | Data input of serial I/O with SQ-MCU: SQ-MCU(22) |
| 63 | STOP | Da | IO | Flash stop of SB serial I/O: STOP terminal |
| 64 | STOPC | A | I | SB power start timer C Connection: C3 minal |
| 65 | RDY | Da | IO | To detect SB serial I/O clock ready:READY ter- |
| 66 | DB imprint | D | O | To output imprinting signal to DB: DB-USK terminal |
| 67 | DBCK | D | O | Clock of serial I/O with DB: DB-CLK terminal |
| 68 | CK | D | IO | Clock of serial I/O with SQ-MCU: SQ-MCU(23) |

# SQ-MCU
## HD4074418C




| Pin | Terminal | I/O | Connected Part | Pin | Terminal | I/O | Connected Part |
|---|---|---|---|---|---|---|---|
| 1 | R03 | I | SQ-I/F (42), Drive SW | 35 | R82 | O | LCD-Dr(11, D2), SQ-I/F(50, D2) |
| 2 | R10 | I | Ref. SW | 36 | R83 | O | LCD-Dr(10, D3), SQ-I/F(49, D3) |
| 3 | R11 | I | Closing curtain SW | 37 | R90 | O | LCD-Dr(8, D4), SQ-I/F(48, D4) |
| 4 | R12 | I | Sequence motor stop SW | 38 | R91 | O | LCD-Dr(7, D5), SQ-I/F(47, D5) |
| 5 | R13 | I | Camera back SW | 39 | R92 | O | LCD-Dr(6, D6) |
| 6 | R20 | I | Rewind SW | 40 | R93 | O | LCD-Dr(5, D7) |
| 7 | R21 | I | Illuminator SW | 41 | RESET | I | AF-MCU(46, Reset out) |
| 8 | R22 | I | Sync. SW | 42 | TEST | I | VDD |
| 9 | R23 | I | Film detection SW | 43 | OSC1 | I | AF-I/F(40, 4MHz out) |
| 10 | RA0 | I | VDD | 44 | OSC2 | | N. C |
| 11 | RA1 | I | SQ-I/F (32, VDD-SW), Main SW | 45 | GND | | D-GND |
| 12 | INT0 | I | Command dial 1 | 46 | D0 | O | LCD-Dr(3, RE) |
| 13 | INT1 | I | AF-MCU (36, Interrupt) | 47 | D1 | O | LCD-Dr(2, WE) |
| 14 | INT2 | I | Command dial 1 | 48 | D2 | I | LCD-Dr(80, READY) |
| 15 | INT3 | I | Command dial 2 | 49 | D3 | O | Self-timer LED driving |
| 16 | INT4 | I | | 50 | D4 | O | Digital transistor Q7 (E ²PROM Vcc on/055) |
| 17 | T12 | I | SQ-I/F (30, E pulse) | | | | |
| 18 | R52 | | N. C | 51 | D5 | | N. C |
| 19 | R53 | | N. C | 52 | D6 | | N. C |
| 20 | R60 | | N. C | 53 | D7 | | N. C |
| 21 | SO2 | O | SQ-I/F (61, SO) | 54 | D8 | O | AF-I/F(21, TG67) |
| 22 | SI2 | I | SQ-I/F (62, SI) | 55 | D9 | O | AF-MCU(37 response sig) |
| 23 | SCK2 | I/O | SQ-I/F (68, CK) | 56 | D10 | O | AF-MCU(38), E ²PROM (1, CE, 6 OSC) |
| 24 | Vcc | | VDD | 57 | D11 | O | SQ-I/F(54, STROBE) |
| 25 | SCK1 | I/O | AF-MCU (39), E ²PROM (2, SCK) | 58 | D12 | O | SQ-I/F(58, SC) |
| 26 | SI, | I | AF-MCU (41), E ²PROM (4, DO) | 59 | D13 | O | Metering IC (20, 21, DA1, DA2:Bias line control) |
| 27 | SO, | O | AF-MCU (40), E ²PROM (3, DI) | | | | |
| 28 | R43 | I | SQ-I/F (37, SB pre-release sig) | 60 | D14 | I | SQ-I/F(20,remote release sig) release SW |
| 29 | R70 | I | SQ-I/F (41), ISO SW | 61 | D15 | O | SQ-I/F(46,CS) |
| 30 | R71 | I | SQ-I/F (40), MODE SW | 62 | R00 | I | SQ-I/F(45), Metering SW |
| 31 | R72 | I | SQ-I/F (39), Self-timer SW | 63 | R01 | I | SQ-I/F(44), ME SW |
| 32 | R73 | I | SQ-I/F (38, Pre-release sig), AF-MCU(47) Pre-release SW | 64 | R02 | I | SQ-I/F(43), +/- SW |
| | | | | | | | |
| 33 | R80 | O | LCD-Dr(13, DO), SQ-I/F(53, DO) | | | | |
| 34 | R81 | O | LCD-Dr(12, D1), SQ-I/F(51, D1) | | | | |

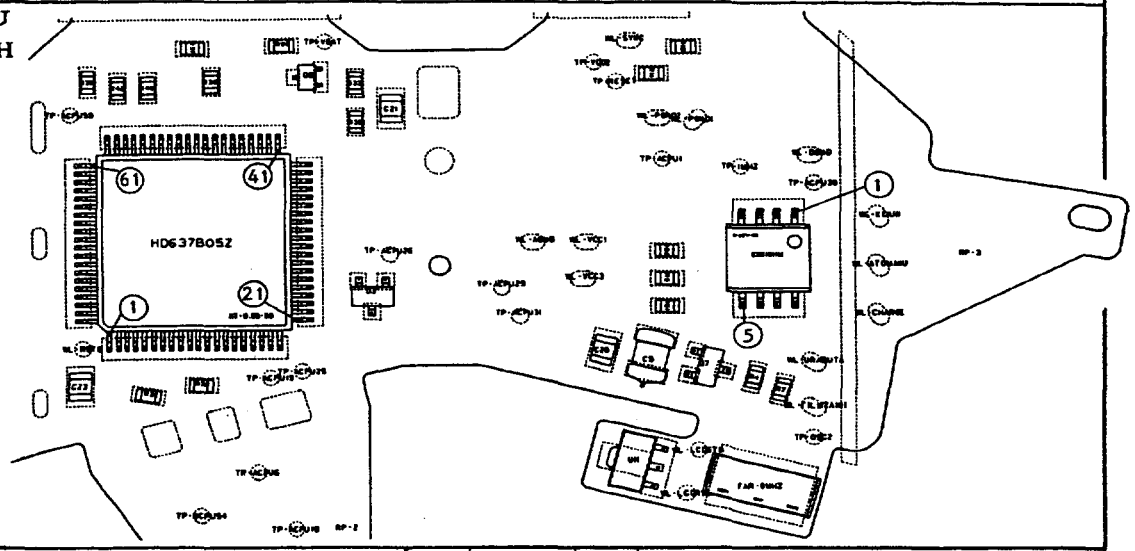
# AF－I／F
## M52920FP




| Pin | Terminal | I/O | Function | Connected part | Pin | Terminal | I/O | Function | Connected part |
|---|---|---|---|---|---|---|---|---|---|
| 1 | VA2 | I | A11 input A | C6 | 33 | Rin | | | N. C |
| 2 | VA1 | O | A10 output | C6 | 34 | PIout | O | Photo interrupter output | AF-MCU(9, 11) |
| 3 | AVcc | | | Vcc | | | | | |
| 4 | Vout | O | A11 output | AF-MCU (26) | 35 | PTT | I | Photo interrupter TR | AF photo interrupter TR-E |
| 5 | VB2 | I | A11 input B | C7 | | | | | |
| 6 | VB1 | O | A9 output | C7 | 36 | PIL2 | O | Photo interrupter LED | AF photo interrupter LED |
| 7 | VRin | I | T proportion input | Metering IC(40) | 37 | PIL1 | O | | |
| | | | | | 38 | X2 | I/O | Oscillator | FAR oscillator |
| 8 | VAin | I | CCD input A | CCD(8) | 39 | X1 | I | Oscillator | FAR oscillator |
| 9 | VBin | I | CCD input B | CCD(1) | 40 | 4Mout | O | 4MHz output | SQ-MCU(43) |
| 10 | VRout | O | Ref. output | AF-MCU(24, AVcc) | 41 | 1Mout | O | 1MHz output | SQ-I/F(15) |
| 11 | AGC | I | AGC input | CCD(7) | 42 | φRb | O | CCD driving signal | CCD(16, φRb) |
| 12 | AGCM | I/O | AGC memory | C8 | | | | | |
| 13 | TG1A | I/O | Communication gate | AF-MCU(67), DX contact | 43 | DGND | | | DGND |
| 14 | TG1B | I/O | | AF-MCU(15,16), LENS(SIO) | 44 | φRa | O | CCD driving signal | CCD(16, φRa) |
| 15 | TG2A | | | N. C | 45 | φC | O | | CCD(14, φC ) |
| 16 | TG2B | I/O | Communication gate | AF-MCU(18) | 46 | φCG | O | | CCD(13, φCG) |
| | | | | | 47 | φTG | O | | CCD(12, φTG) |
| 17 | TG3A | | | N. C | 48 | AGC/STB | O | AGC/STB signal | AF-MCU(19) |
| 18 | TG3B | | | N. C | | | | | |
| 19 | AGND | | | Analog GND | | | | | |
| 20 | TG45 | I/O | Communication gate | AF-MCU(13, 43), LENS(R/W1) | | | | | |
| 21 | TG67 | I/O | | SQ-MCU (54) | | | | | |
| 22 | D0 | I | Latch input | AF-MCU(80) | | | | | |
| 23 | D1 | I | | AF-MCU(79) | | | | | |
| 24 | D2 | I | | AF-MCU(78) | | | | | |
| 25 | D3 | I | | AF-MCU(77) | | | | | |
| 26 | D4 | I | | AF-MCU(76) | | | | | |
| 27 | D5 | I | | AF-MCU(75) | | | | | |
| 28 | S1 | I | Chip select | AF-MCU(74) | | | | | |
| 29 | S2 | I | | AF-MCU(73) | | | | | |
| 30 | STB | I | Strobe | AF-MCU(72) | | | | | |
| 31 | D/A | O | D/A output | Metering IC (40) | | | | | |
| 32 | DVCC | | | DVDD | | | | | |

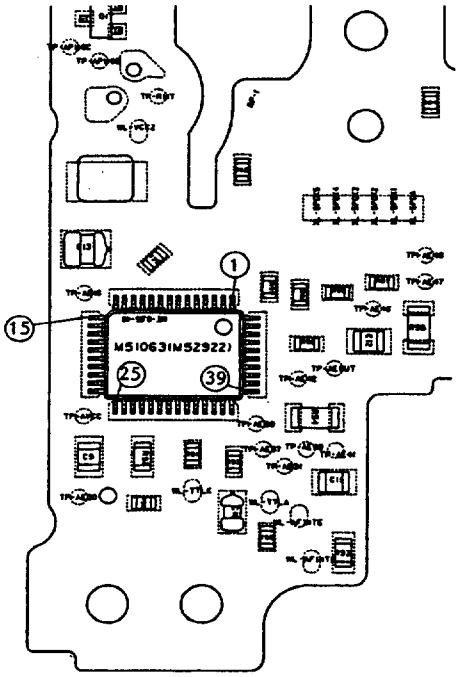
FAA22051-R. 3241. A

## AF-MCU
HD637B05Z0H




| Pin | Terminal | I/O | Connected part | Pin | Terminal | I/O | Connected part |
|---|---|---|---|---|---|---|---|
| 1 | RES | I | SQ-IF (17 reset-out) | 41 | PH7 | I | SQ-MCU (26), E² PROM (4, DO) |
| 2 | XTAL | | FAR(8MHz) | 42 | PJ4 | O | SQ-MCU (34, RC sig) |
| 3 | EXTAL | | FAR(8MHz) | 43 | PJ3 | I/O | LENS (R/W1) |
| 4 | MP1 | I | R30 Selection of chip select | 44 | PJ2 | | N. C |
| 5 | MP0 | I | R31 mode | 45 | PJ1 | I/O | LENS (R/W2) |
| 6 | NMI | I | SQ-IF (7, Wake-up1) | 46 | PJ0 | O | SQ-MCU (41) |
| 7 | STBY | I | VDD | 47 | PF7 | I | SQ-MCU (32), SQ-I/F(38, Pre-release), |
| 8 | Vcc | | VDD | 48 | PF6 | I | Preview SW / Pre-release SW |
| 9 | Tin1 | I | AF-MCU(11), AF-I/F (34, PI out) | 49 | PF5 | I | AF A/M SW |
| 10 | PC6 | | N. C | 50 | PF4 | | N. C |
| 11 | Tin2 | I | AF-MCU(11), AF-I/F (34, PI out) | 51 | PF3 | | N. C |
| 12 | PC4 | | N. C | 52 | PF2 | I | AF mode SW |
| 13 | PC3 | I/O | AF-MCU(43), AF-I/F(20), LENS(R/W1) | 53 | PF1 | I | AF lock SW |
| 14 | SCLK | O | LENS (SCLK) | 54 | PF0 | I | AF lock SW |
| 15 | Rx | I | AF-I/F(14, TG1B), LENS(SIO) | 55 | MP2 | I | D-GND |
| 16 | tx | O | | 56 | Vss | | D-GND |
| 17 | PAo | | N. C | 57 | PE7 | | N. C |
| 18 | INT1 | I | AF-I/F(16) | 58 | PE6 | | N. C |
| 19 | INT2 | I | AF-I/F(48, AGC/STBY) | 59 | PE5 | | N. C |
| 20 | PA3 | | N. C | 60 | PE4 | O | AF motor driver (3, input 1) |
| 21 | PA4 | | N. C | 61 | PE3 | O | AF motor driver (2, input 2) |
| 22 | PA5 | | N. C | 62 | PE2 | O | Metering IC (16, S2) |
| 23 | PA6 | | N. C | 63 | PE1 | O | Metering IC (17, S1) |
| 24 | AVcc | | AF-I/F(10, VR out), F-Fo | 64 | PE0 | O | Metering IC (18, S0) |
| 25 | AN0 | I | AF-I/F(7, VR in), Metering IC(40,Vref) | 65 | PG0 | I | DX2 (SV2²) |
| 26 | AN1 | I | AF-I/F(4, Vout, CCD output) | 66 | PG1 | I | DX3 (SV2¹) |
| 27 | AN2 | I | SQ-IF (56, TTL), TTL terminal | 67 | PG2 | I | DX4 (SV2⁰), AF-I/F (13, TG1A) |
| 28 | AN3 | I | Metering IC (37, A16 out) | 68 | PG3 | I | DX5 (SV 2/3) |
| 29 | AN4 | I | F-Fo (Analog input) | 69 | PG4 | I | DX6 (SV 1/3) |
| 30 | AN5 | | N. C | 70 | PG5 | | N. C |
| 31 | AN6 | I | Metering IC (46, Filter output) | 71 | PG6 | | CCD(5) |
| 32 | AN7 | I | VBAT (Analog input) | 72 | PG7 | O | AF-I/F(30, STB) |
| 33 | AVss | | A-GND | 73 | PB0 | O | AF-I/F(29, S2) |
| 34 | PH0 | | N. C | 74 | PB1 | O | AF-I/F(28, S1) |
| 35 | PH1 | | N. C | 75 | PB2 | O | AF-I/F(27, D5) |
| 36 | PH2 | O | SQ-MCU (13) | 76 | PB3 | O | AF-I/F(26, D4) |
| 37 | PH3 | I/O | SQ-MCU (55, response sig.) | 77 | PB4 | O | AF-I/F(25, D3) |
| 38 | PH4 | O | SQ-MCU (56), E² PROM (1, CE, 6, OSC) | 78 | PB5 | O | AF-I/F(24, D2) |
| 39 | PH5 | O | SQ-MCU (25), E² PROM (2, SCK) | 79 | PB6 | O | AF-I/F(23, D1) |
| 40 | PH6 | O | SQ-MCU (27), E² PROM (3, DI) | 80 | PB7 | O | AF-I/F(22, DO) |

測光 I C
M52922




| Pin | Terminal | Connected part |
|---|---|---|
| 1 | N. C | N. C |
| 2 | Ref vol A7 output | Multi segment SPD (common) |
| 3 | A1 input | Multi segment SPD (upper left) |
| 4 | A2 input | Multi segment SPD (upper right) |
| 5 | A3 input | Multi segment SPD (lower right) |
| 6 | A4 input | Multi segment SPD (lower left) |
| 7 | A5 input | Multi segment SPD (center) |
| 8 | A6 input | N. C |
| 9 | A3 off-set adj. 1 | N. C |
| 10 | A3 off-set adj. 2 | N. C |
| 11 | Vcc | A−Vcc |
| 12 | Reset output | N. C |
| 13 | Reset delay C | N. C |
| 14 | N. C | N. C |
| 15 | A10 select (S3) | A−GND |
| 16 | A9 select (S2) | AF-MCU(62) |
| 17 | A9 select (S1) | AF-MCU(63) |
| 18 | A9 select (S0) | AF-MCU(64) |
| 19 | GND | A−GND |
| 20 | Discharging (DA1) | SQ-MCU(59) |
| 21 | Charging (DA2) | |
| 22 | LED control input | N. C |
| 23 | LED control input | N. C |
| 24 | Flash terminal | A−GND |
| 25 | N. C | N. C |
| 26 | Integration start signal | SQ-I/F (57, IS sig), adj. IS terminal |
| 27 | Flash stop sig 2 | SQ-I/F (63, STOP), TTL sync. contact |
| 28 | Flash stop sig 1 | N. C |
| 29 | Flash integration condenser | R92, C9 |
| 30 | A15 output | R50 |
| 31 | A15 (-) input | R50, R53 |
| 32 | A15 (+) input | Metering IC (36) |
| 33 | N. C | N. C |

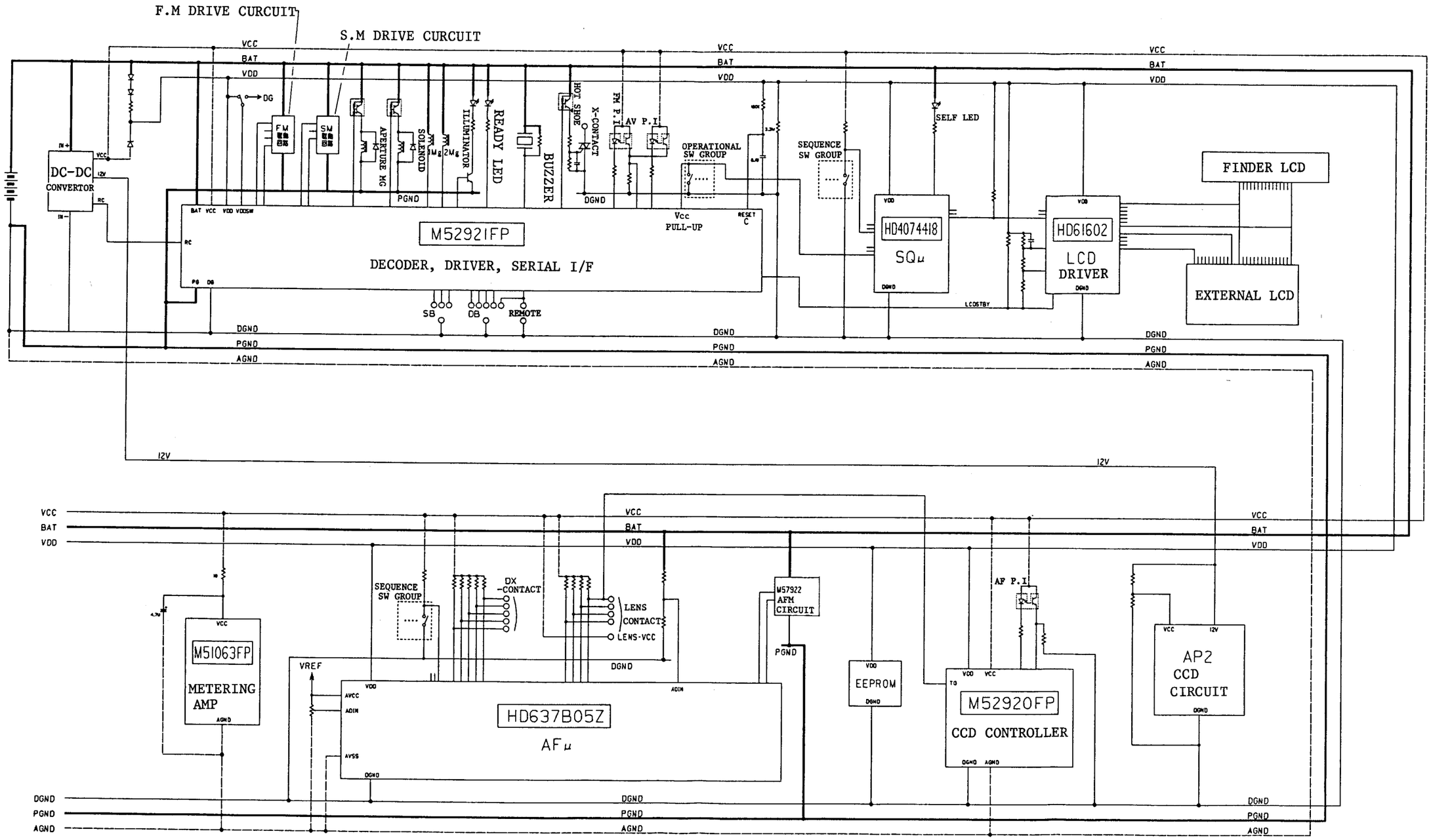
| Pin | Terminal | Connected part |
|---|---|---|
| 34 | Sync SPD K | Sync SPD cathode |
| 35 | Sync SPD A | Sync SPD anode |
| 36 | A12 output 2 | Metering IC (32) |
| 37 | A16 output | AF-MCU (28) |
| 38 | N. C | N. C |
| 39 | A16 input | AF-I/F (31, DA) |
| 40 | Vref (A11 output) | AF-I/F (7, VRin), AF-MCU(25) |
| 41 | A11 input | R54, R55 |
| 42 | A10 (+) input 2 | Metering IC (45) |
| 43 | N. C | N. C |
| 44 | GND | Analog-GND |
| 45 | A10 (+) input 1 | Metering IC (42) |
| 46 | A10 output | Filter output: AF-MCU (31) |
| 47 | A10 (-) input | R57, R58 |
| 48 | A9 output | R58 |

## METERING AMP SELECTION LIST

| | | AMP | S2 | S1 | S0 |
|---|---|---|---|---|---|
| Order of changeover ↓ | Central SPD | A5 | H | L | H |
| | Upper left SPD | A1 | L | L | H |
| | Lower right SPD | A3 | L | H | H |
| | Upper right SPD | A2 | L | H | L |
| | Lower left SPD | A4 | L | L | L |
| | Before switched to A5 | A4 | H | L | L |

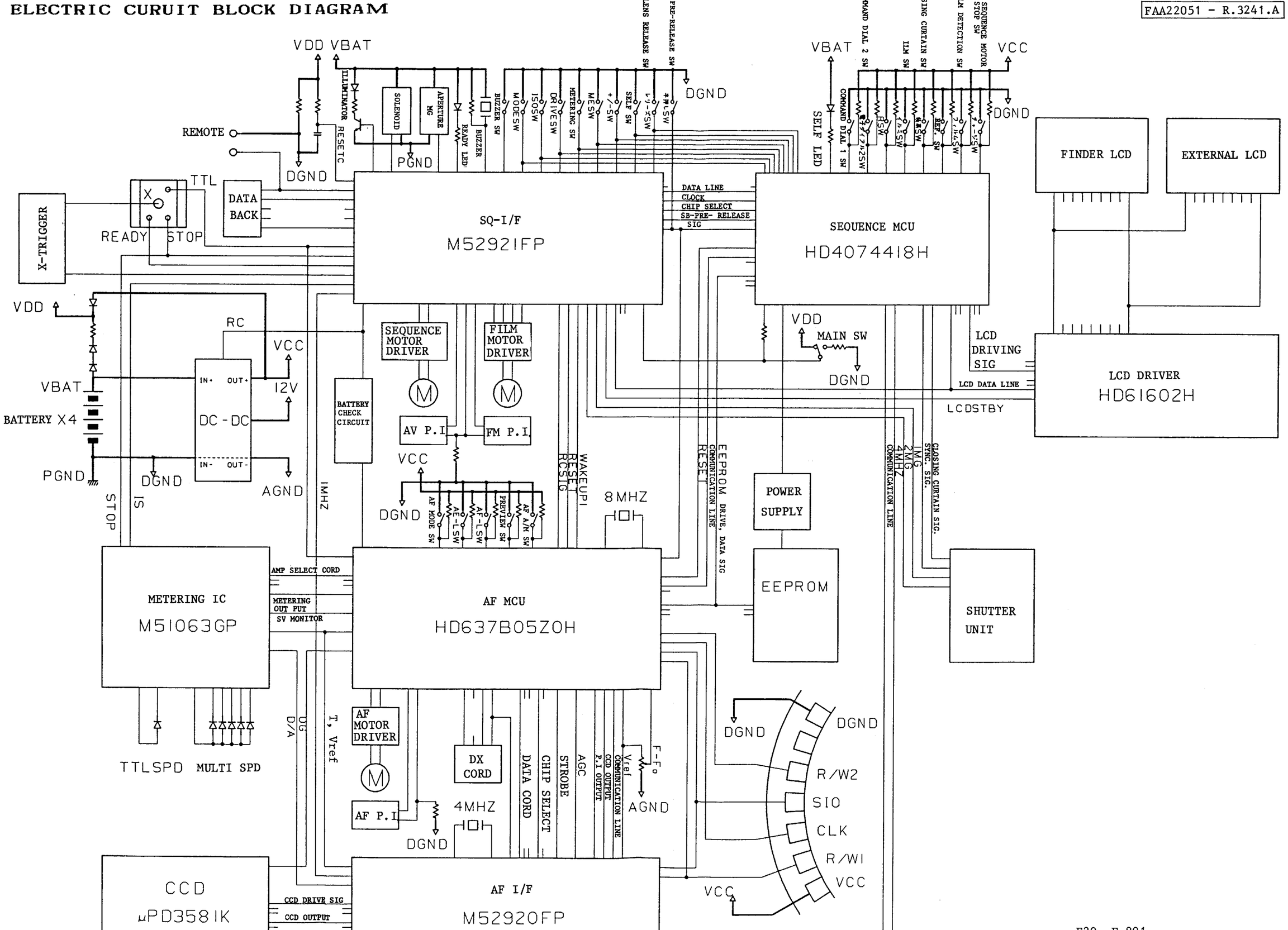
Changeover is made by one bit.

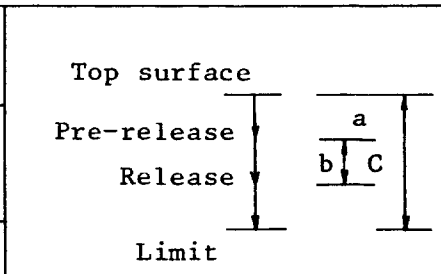
# BLOCK DIAGRAM FOR POWER SUPPLY



# ELECTRIC CURUIT BLOCK DIAGRAM

FAA22051 - R.3241.A



| | ITEM | STANDARD | |
|---|---|---|---|
| VIEWFINDER | Focusing accuracy at infinity | 0±20" | |
| | Magnification | 0.81 X (at -1dpt.) | |
| | Viewfinder coverage | $92^{+4}_{-2}$% (Vertically/Horizontally) | |
| MIRROR BOX | Height of aperture lever | 3.4±0.1mm | |
| | Stroke | 7.4mm or more (Reference: 3.4mm) | |
| AF LOCK BUTTON | ON/OFF position | To turn on by the push of 0.5mm or more<br>To turn off when the finger is put off the button | |
| | Stroke | $1.1^{+0.2}_{-0.3}$mm | |
| SHUTTER RELEASE BUTTON | Pre-release ON position (a) | 0.5±0.1mm |  |
| | Release position (b) (difference from a) | 0.4±0.1mm | |
| | Whole stroke | 1.25±0.1mm | |
| MAIN SW LEVER | Stroke (OFF↔ON↔ ■)) | 1.9mm | |
| EXPOSURE COMPENSATION BUTTON | ON stroke | 0.8±0.2mm | |
| REWIND BUTTON | ON stroke | 0.8±0.2mm | |
| AE LOCK LEVER | ON stroke | 1.3±0.2mm | |
| | Whole stroke | 1.8±0.2mm | |
| ILLUMINATOR BUTTON<br>SELF-TIMER BUTTON<br>METERING SYSTEM SELECTION BUTTON<br>MODE BUTTON<br>ISO BUTTON<br>DRIVE BUTTON<br>ME/REWIND BUTTON | ON stroke | 0.8±0.2mm | |

| | ITEM | STANDARD | | |
|---|---|---|---|---|
| MANUAL SHUTTER SPEED ACCURACY | Accuracy | 1/8000: ±0.65EV<br>1/4000: ±0.40EV<br>1/2000: ±0.25EV<br>Below 1/2000: ±0.20EV | | |
| | Exposure time | Official value | Standard (ms) | Tolerance (ms) |
| | | 1/8000 | 0.122 | 0.078 - 0.191 |
| | | 1/4000 | 0.244 | 0.179 - 0.334 |
| | | 1/2000 | 0.49 | 0.410 - 0.583 |
| | | 1/1000 | 0.98 | 0.853 - 1.13 |
| | | 1/500 | 1.95 | 1.70 - 2.24 |
| | | 1/250 | 3.91 | 3.40 - 4.49 |
| | | 1/125 | 7.81 | 6.80 - 8.97 |
| | | 1/60 | 15.63 | 13.61 - 17.95 |
| | | 1/30 | 31.25 | 27.20 - 35.90 |
| | | 1/15 | 62.5 | 54.41 - 71.79 |
| | | 1/8 | 125 | 108.8 - 143.6 |
| | | 1/4 | 250 | 217.6 - 287.2 |
| | | 1/2 | 500 | 435.3 - 574.3 |
| | | 1/1 - 30 | 1000 | ±0.2EV |
| | Exposure unevenness and variation | Shutter speed | Variation | Unevenness |
| | | 1/8000 | 0.55EV or less | 0.70EV or less |
| | | 1/4000 | 0.30EV or less | 0.40EV or less |
| | | 1/2000 | 0.20EV or less | 0.25EV or less |
| | | Below 1/2000 | 0.20EV or less | 0.20EV or less |
| MANUAL SHUTTER CONTROL | Shutter bound | No shutter bound is acceptable. | | |
| | Sync. time lag | 0.15 - 0.4ms | | |
| | Contact efficiency | 50% or more (at 2.5ms or 1ms gate time) | | |
| | Insulation resistance | 30MΩ or more | | |
| EXPOSURE CONTROL | Exposure value on image surface | Above 1/6000: ±0.9EV<br>1/6000 or slower: ±0.65EV | | |
| | Variation | Above 1/6000: ±0.70EV<br>1/6000 or slower: 0.30EV or less | | |
| | Aperture control accuracy (S or P mode) | LV12, 1/125, F5.6, ISO 100: ±0.3AV<br>Other combination: ±0.5AV | | |
| | Variation | LV12, 1/125, F5.6, ISO 100: ±0.3AV<br>Other combination: ±0.5AV | | |

| | ITEM | STANDARD |
|---|---|---|
| EXPOSURE CONTROL | Shutter speed accuracy in A mode | LV15, 1/250, F11: 0.4TV or less<br>LV12, 1/250, F5.6: 0.4TV or less<br>LV6, 1/15, F2: 0.4TV or less<br>Other combination: Exposure value on image surface should be inside the standard. |
| | Program accuracy (P mode) | AV+TV is over 1/6000: ±0.9EV<br>AV+TV is 1/6000 or below: ±0.65EV<br><br>* In case EV is outside the standard even if AV and TV are inside it, the exposure value on the image surface has a priority. |
| FLASH | TTL flash available film | ISO 25 - ISO 1000 |
| PRE-RELEASE TIMER | Pre-release duration | After pre-release SW ON: 8 sec.<br>After shooting: 2 sec.<br>Light metering and focusing can work in the pre-release duration. |
| BATTERY CHECK | 4.8V or higher<br>4.5 - 4.8V<br>Below 4.5V | Pre-release timer: 8 sec.<br>Pre-release timer: 0 sec.<br>Display disappears and shutter locks. |
| BATTERY CONSUMPTION, REWIND DURATION | For metering | Approx. 100mA or less (without illumination) |
| | For AF lens driving | Approx. 300mA or less |
| | For shutter operation | Approx. 100mA |
| | For sequential operation | Approx. 350mA |
| | For film rewind | Approx. 350mA |
| | Current leakage | When power OFF: Approx. 50μA or less<br>When power ON : Approx. 150μA or less |
| | Rewind duration | Approx. 12 sec. (with 24-exposure film) |
| SHOOTING SPEED | At 20°C | CH: 3.3 frame/sec. or faster<br>CL: 2 frame/sec. or faster |
| | At -10°C | CH: 3 frame/sec. or faster<br>CL: 1.5 frame/sec. or faster<br>(Average value with 36-exposure film) |
| AF | Adjustment accuracy | YAW : 0±3mrad<br>PITCH: 0±6mrad<br>Z : 0±30μm |
| | Focus available condition | Maximum aperture: F5.6<br>Brightness: EV-1 - EV19 (with ISO 100 film at ordinary temperature) |

TOOLS

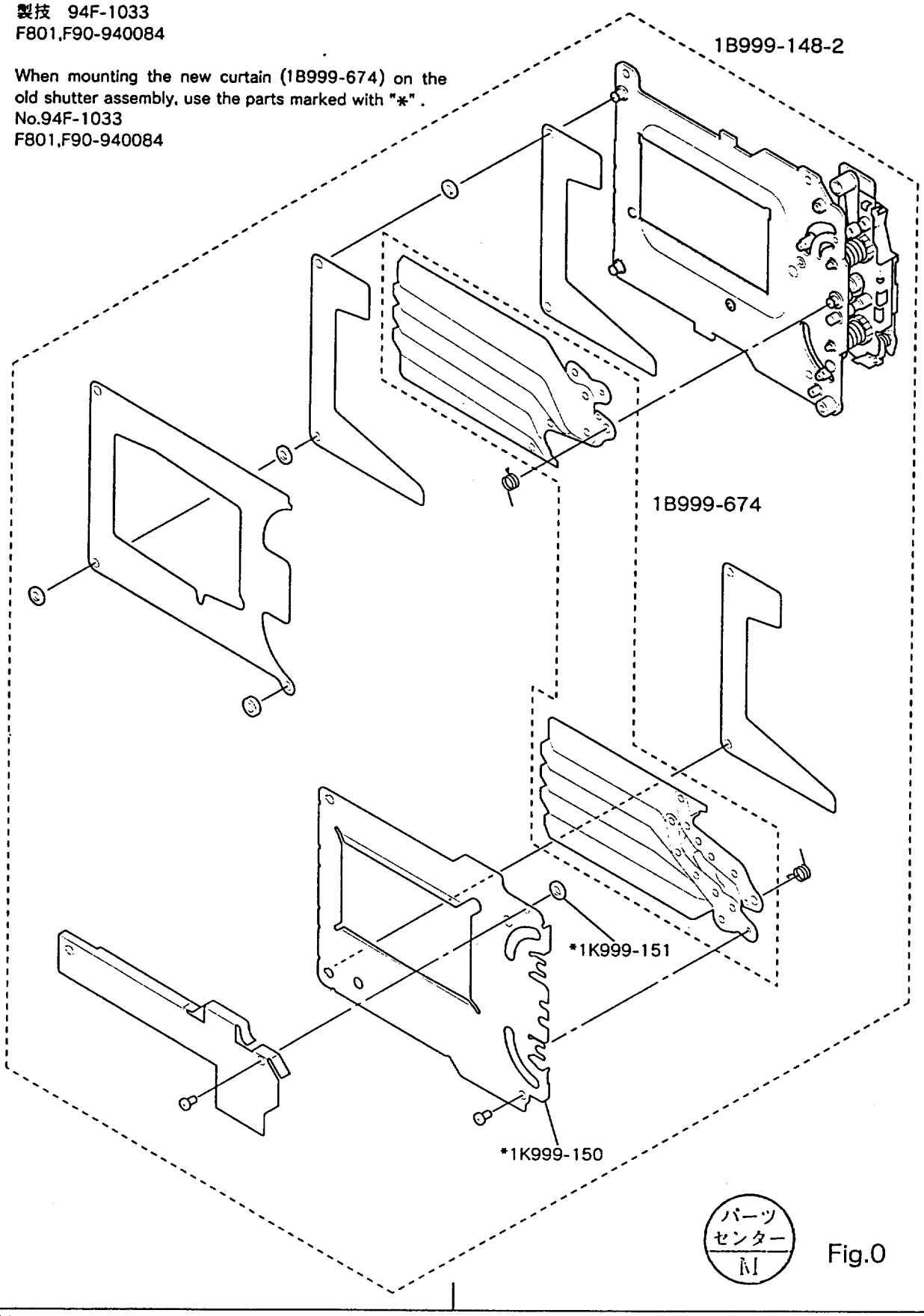
| TOOL NO. | NAME | CLASS |
|---|---|---|
| J18202 | F-Fo adjustment tool | A |
| J18204 | F-801 adjustment floppy disk | A |
| J15270-1 | Conversion part for J15270 | A |
| J19043 | Sync. adapter EC-1 | A |

FAA22051-R.3241.B

# F801 シャッター部
# F801 Shutter

旧シャッター組品に新シャッター幕1B999-674を取付ける時は＊の部品を使用すること
製技　94F-1033
F801,F90-940084

When mounting the new curtain (1B999-674) on the old shutter assembly, use the parts marked with "*".
No.94F-1033
F801,F90-940084




パーツセンター

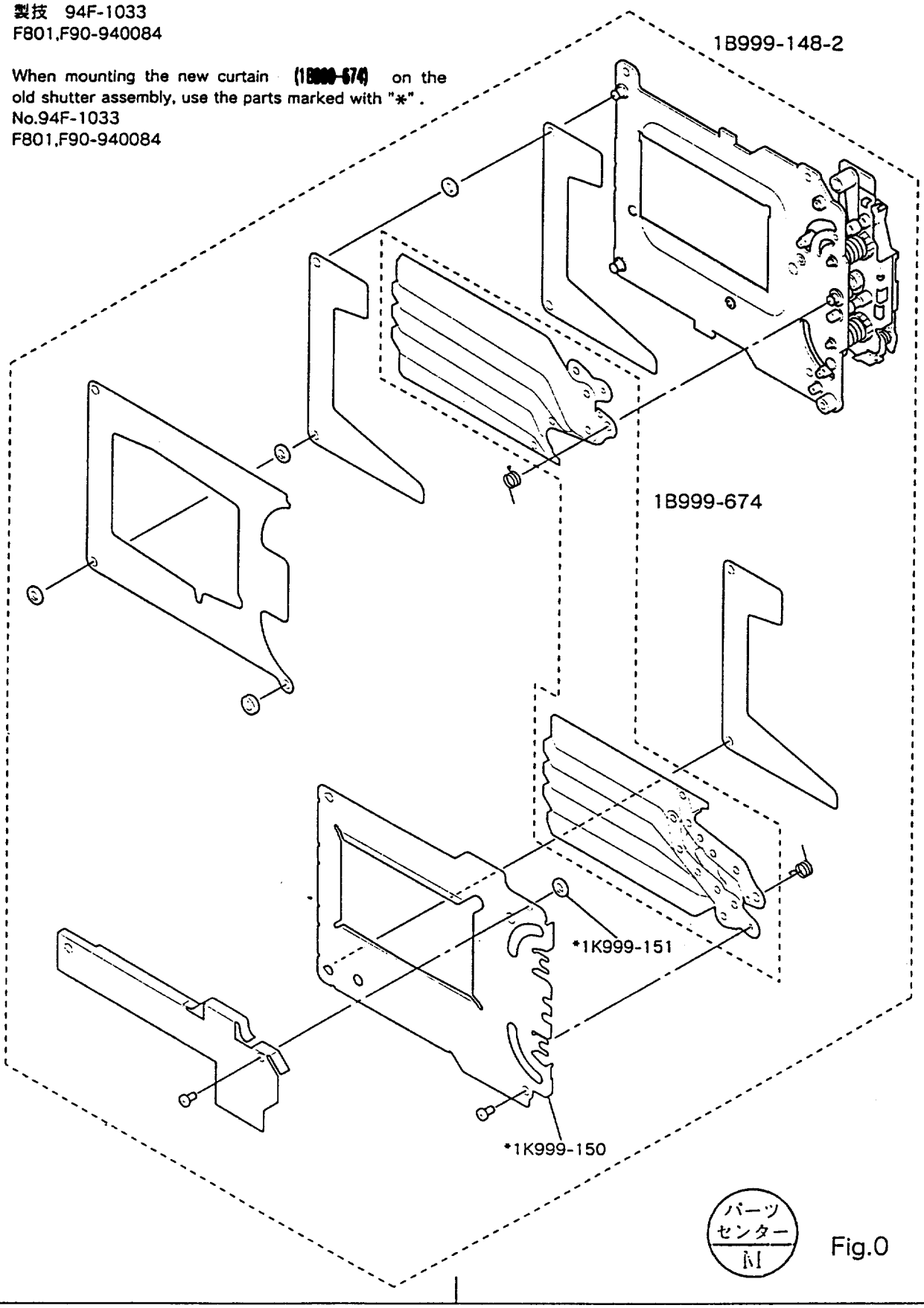
Fig.0

FAA22051-R.3241.B

# F801 シャッター部
# F801 Shutter

旧シャッター組品に新シャッター幕1B999-674を取付ける時は＊の部品を使用すること
製技 94F-1033
F801,F90-940084

When mounting the new curtain (1B999-674) on the old shutter assembly, use the parts marked with "*".
No.94F-1033
F801,F90-940084




パーツセンター M

Fig.0

BODY DIECASTING, SHUTTER UNIT, DB.DX CONTACT BASE PLATE UNIT

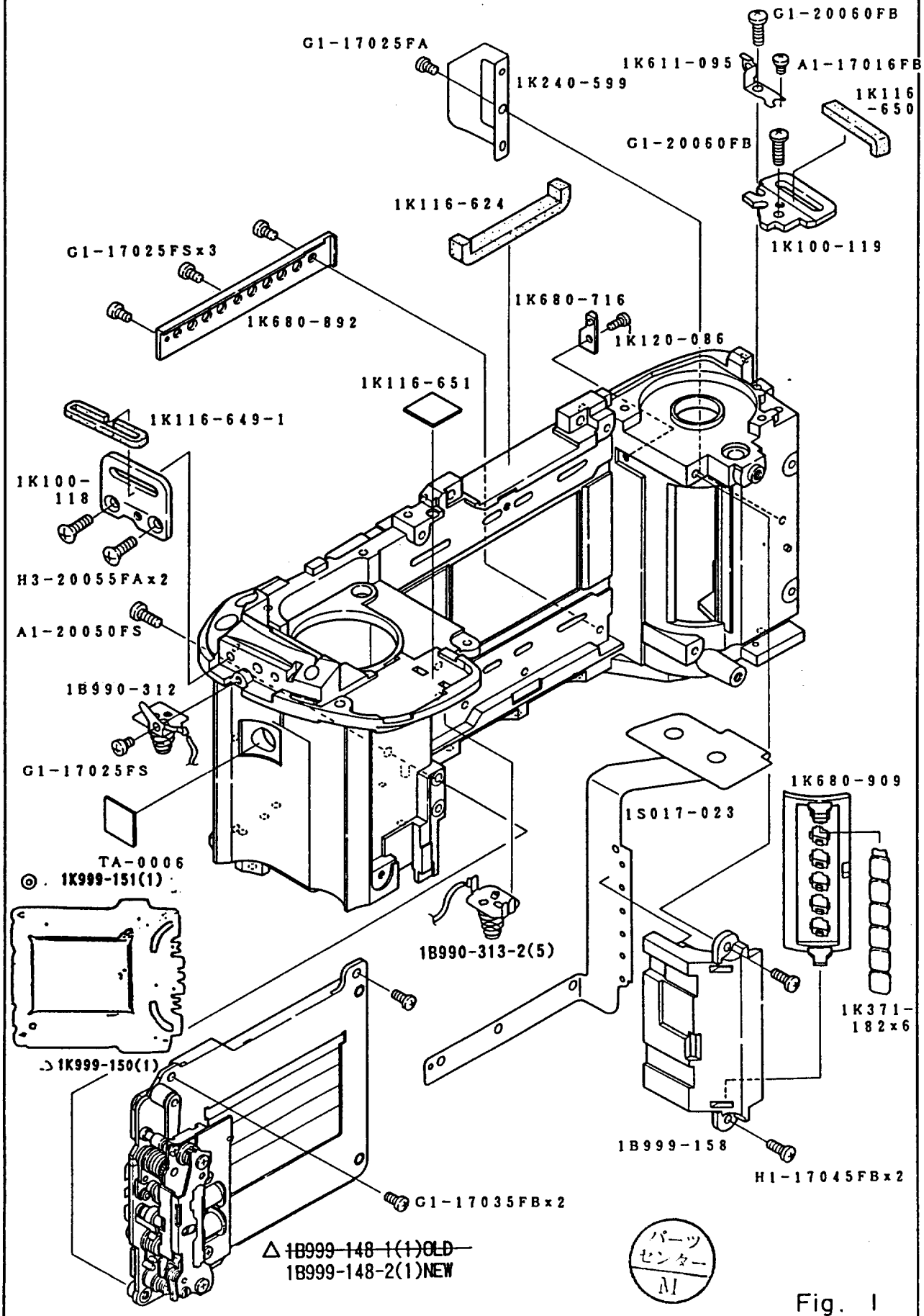



Fig. 1

巻き戻し基板・裏蓋開閉キー部・F検知SW部

FAA22051-R.3241.B

REWIND BASE PLATE, CAMERA BACK OPEN/CLOSE KEY, FILM DETECTION SW

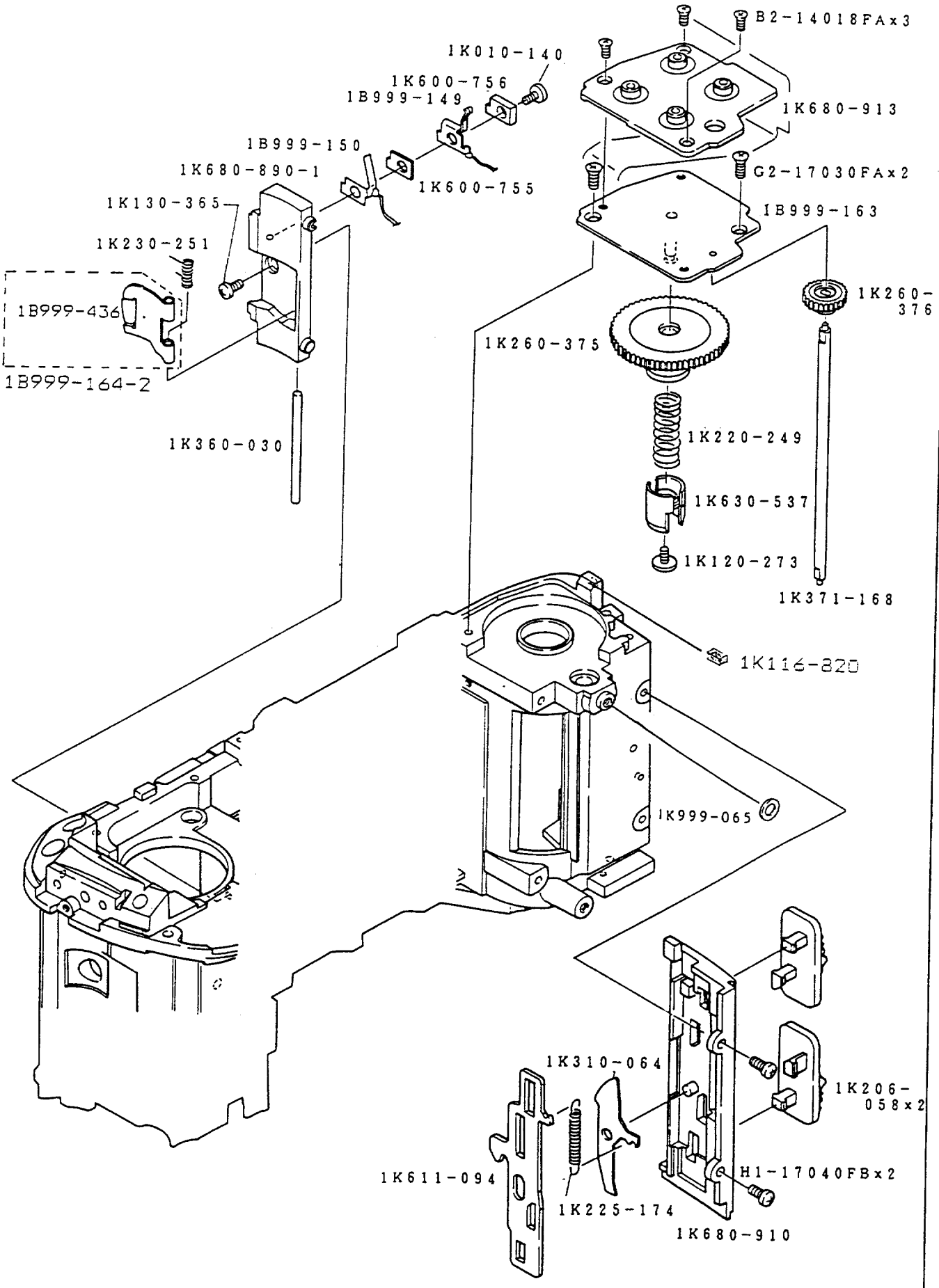



Fig. 2

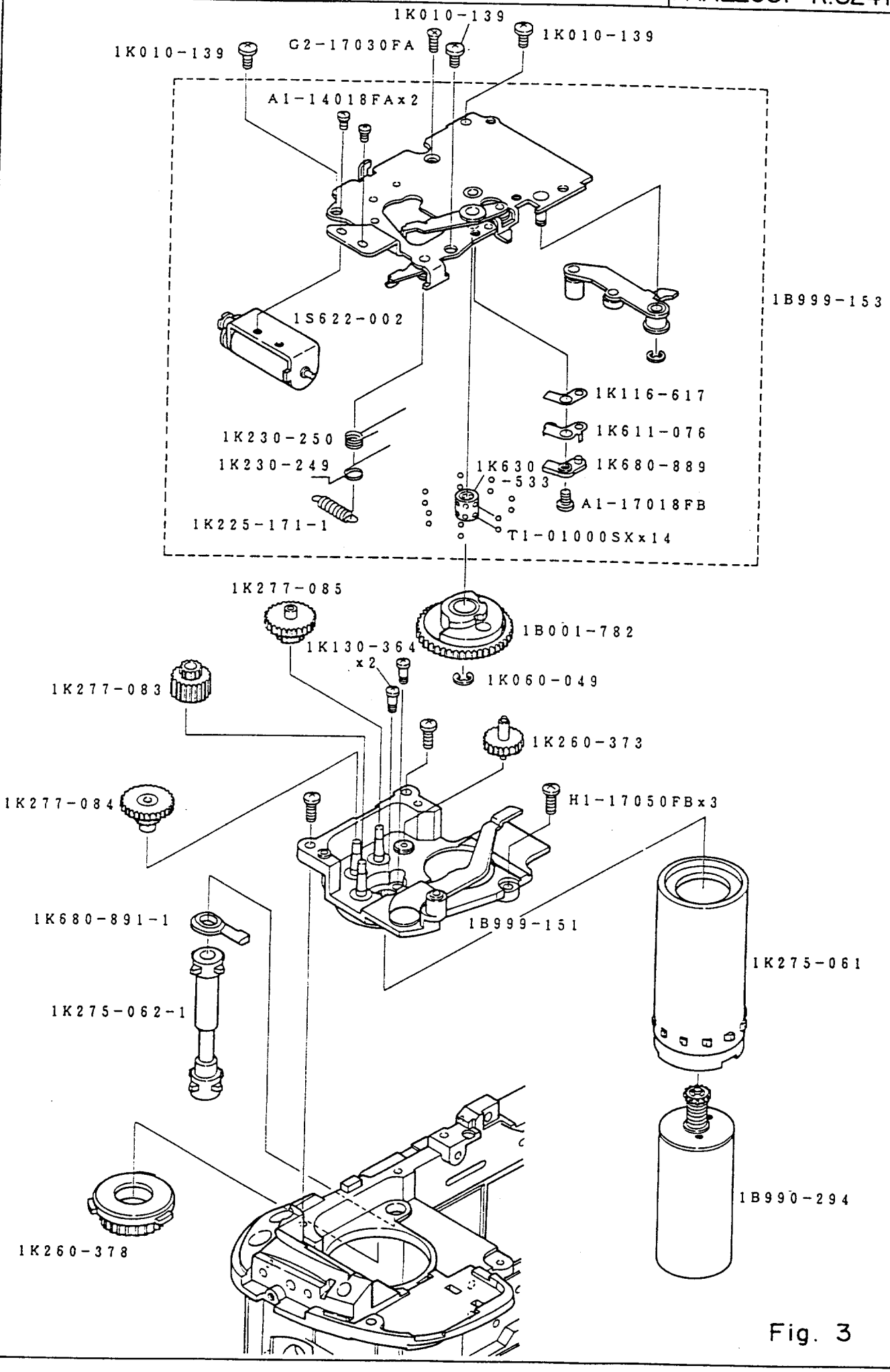

1K010-139
1K010-139
G2-17030FA
1K010-139
A1-14018FAx2
1S622-002
1B999-153
1K116-617
1K611-076
1K680-889
1K230-250
1K230-249
1K630-533
A1-17018FB
1K225-171-1
T1-01000SXx14
1K277-085
1B001-782
1K130-364
x2
1K060-049
1K277-083
1K260-373
1K277-084
H1-17050FBx3
1K680-891-1
1B999-151
1K275-061
1K275-062-1
1B990-294
1K260-378

Fig. 3

電源ＦＰＣ・フィルム給送基板部

FAA22051-R.3241.B

POWER SWITCH FPC, FILM ADVANCE BASE PLATE UNIT

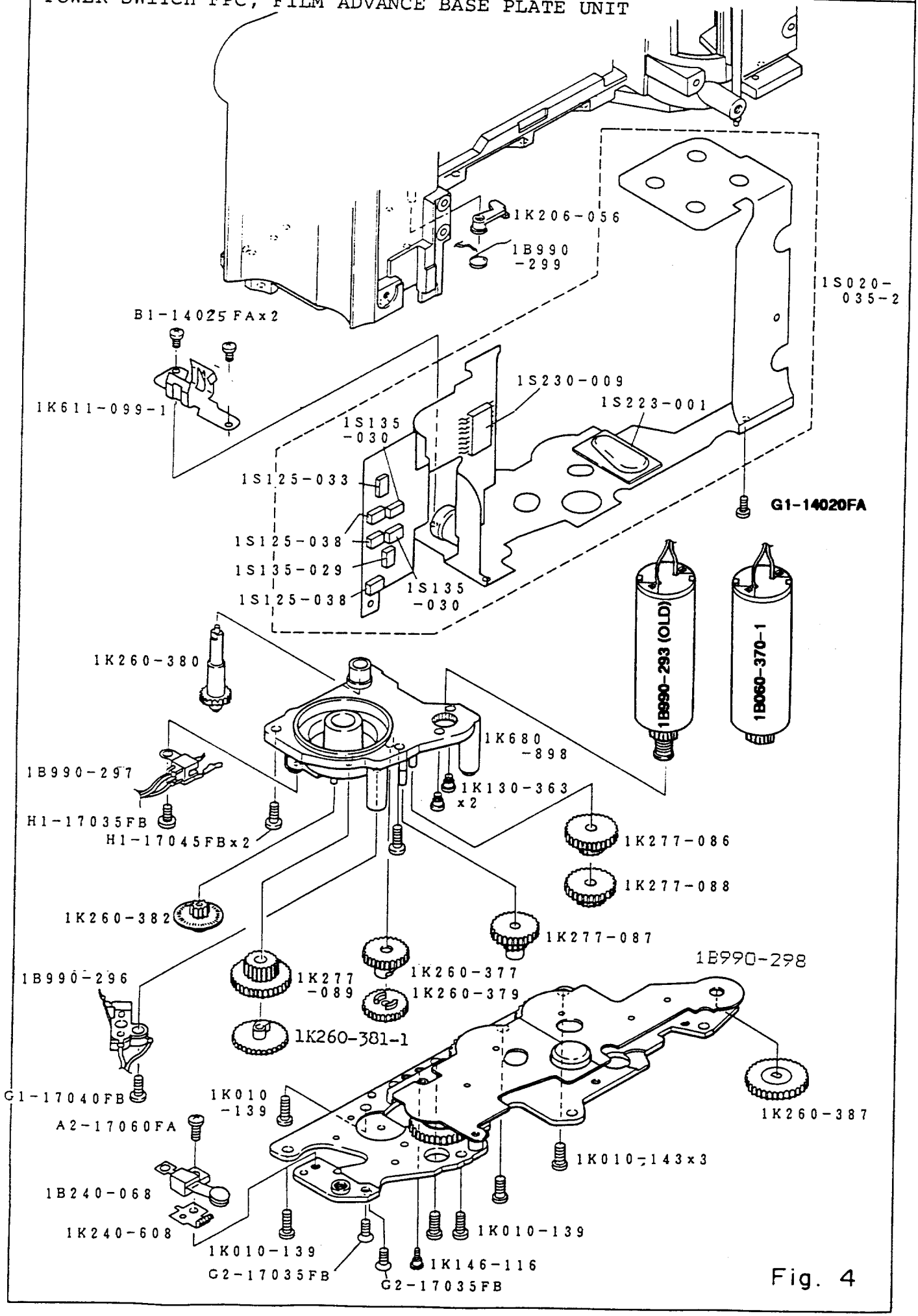



Fig. 4

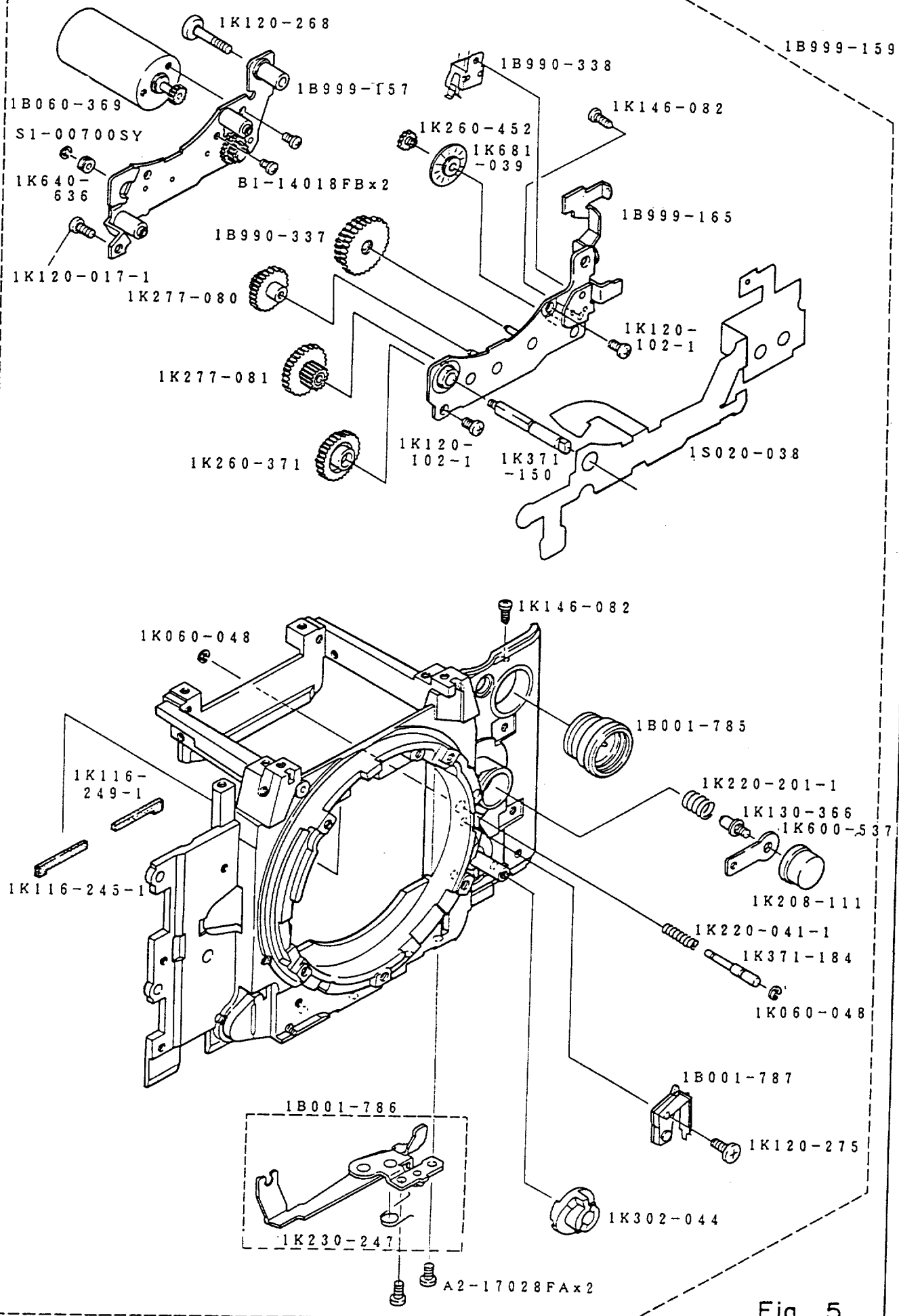
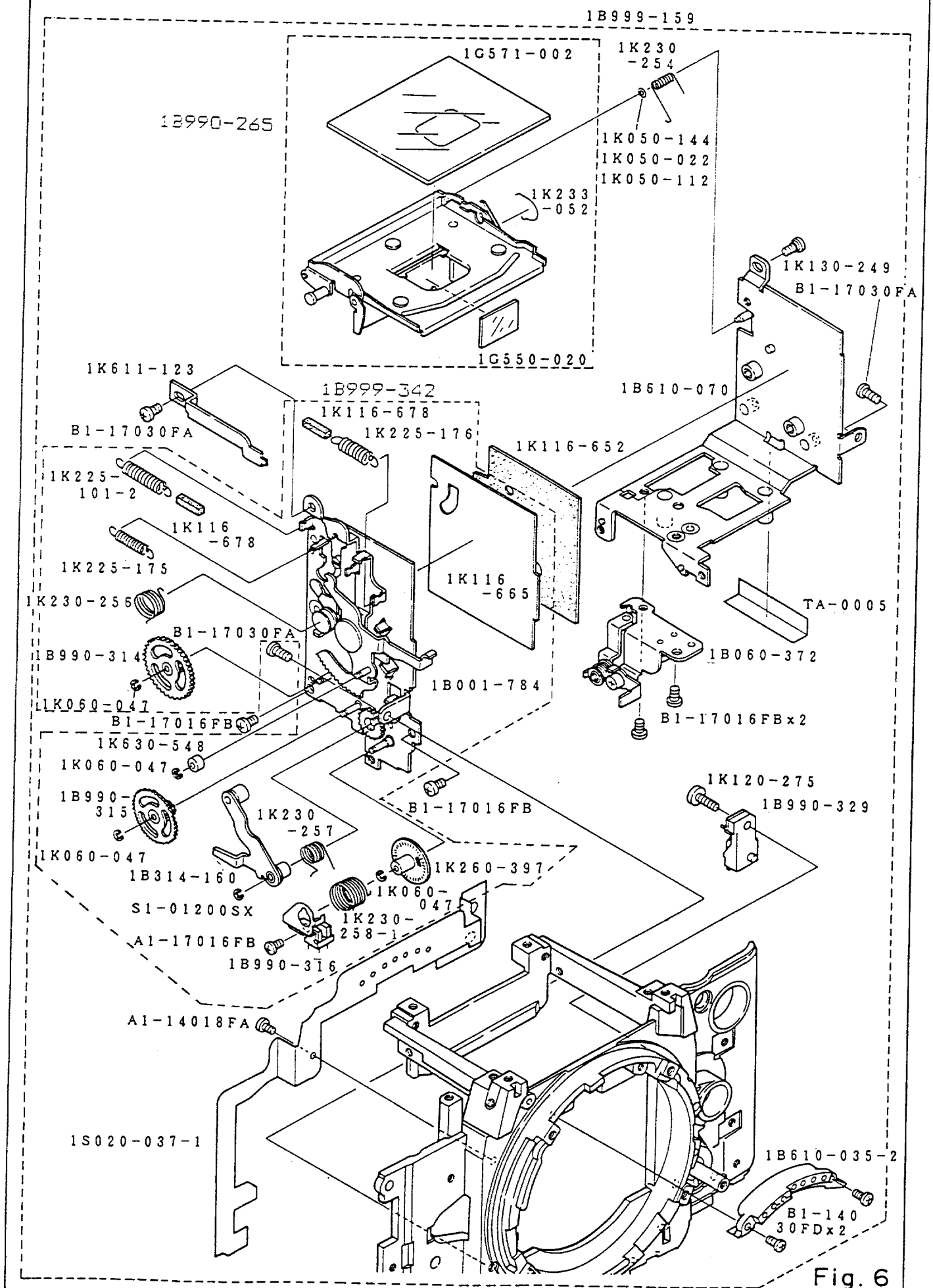

1K120-268
1B999-159
1B990-338
1B999-157
1B060-369
1K146-082
S1-00700SY
1K260-452
1K681-039
1K640-636
B1-14018FBx2
1B999-165
1B990-337
1K120-017-1
1K277-080
1K120-102-1
1K277-081
1K260-371
1K120-102-1
1K371-150
1S020-038
1K146-082
1K060-048
1B001-785
1K116-249-1
1K220-201-1
1K130-366
1K600-537
1K116-245-1
1K208-111
1K220-041-1
1K371-184
1K060-048
1B001-787
1B001-786
1K120-275
1K302-044
1K230-247
A2-17028FAx2

Fig. 5


1B999-159
1G571-002
1K230-254
1B990-265
1K050-144
1K050-022
1K050-112
1K233-052
1G550-020
1K130-249
B1-17030FA
1K611-123
1B999-342
1K116-678
1K225-176
1B610-070
B1-17030FA
1K116-652
1K225-101-2
1K116-678
1K225-175
1K230-256
1K116-665
TA-0005
B1-17030FA
1B990-314
1B060-372
1K060-047
1B001-784
B1-17016FBx2
B1-17016FB
1K630-548
1K060-047
1K120-275
1B990-329
1B990-315
1K230-257
B1-17016FB
1K060-047
1B314-160
1K260-397
1K060-047
S1-01200SX
1K230-258-1
A1-17016FB
1B990-316
A1-14018FA
1S020-037-1
1B610-035-2
B1-14030FDx2
Fig. 6

FAA22051-R.3241. B

FRONT BODY, APRON, MANUAL APERTURE BASE PLATE

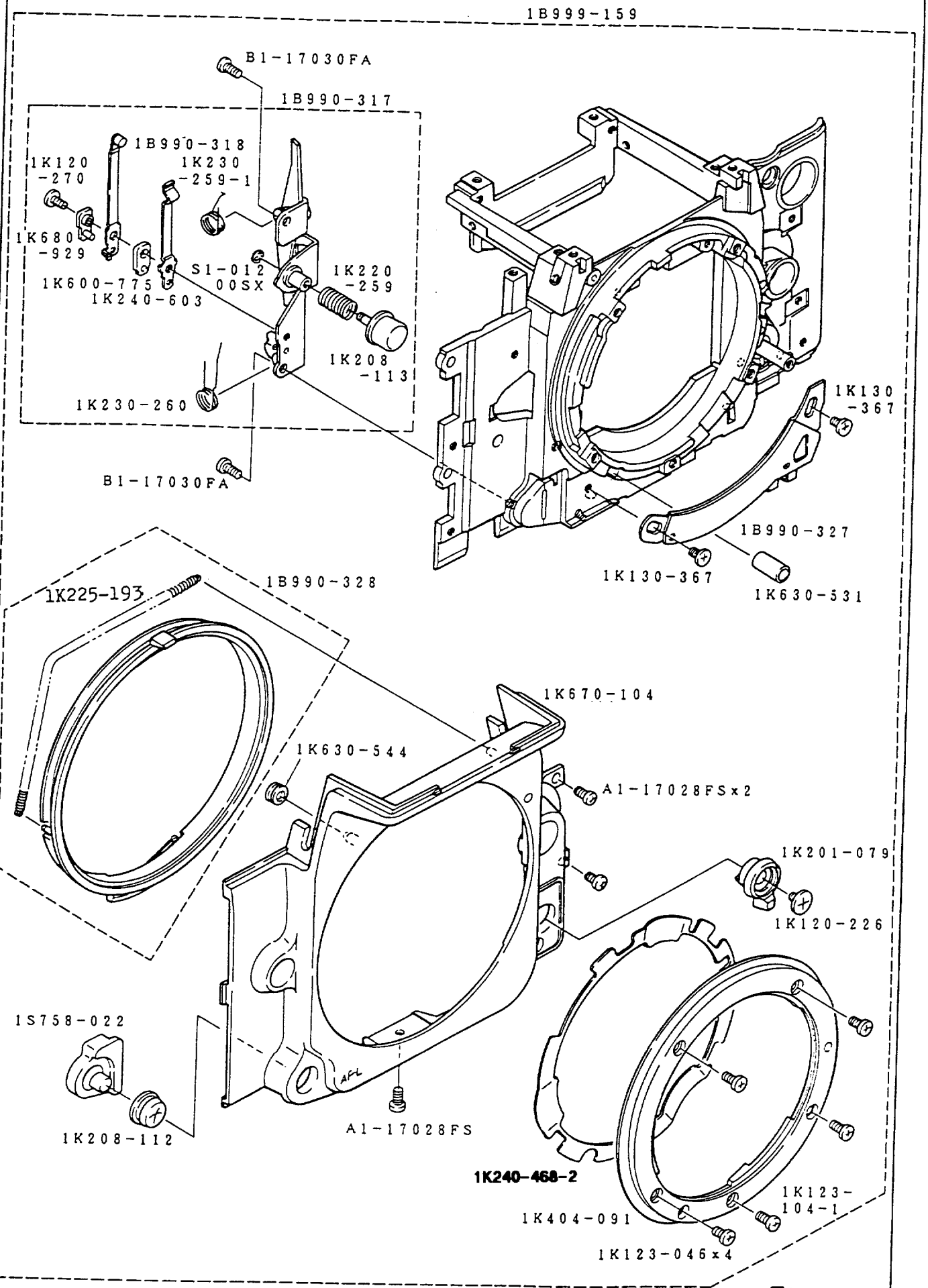



Fig. 7

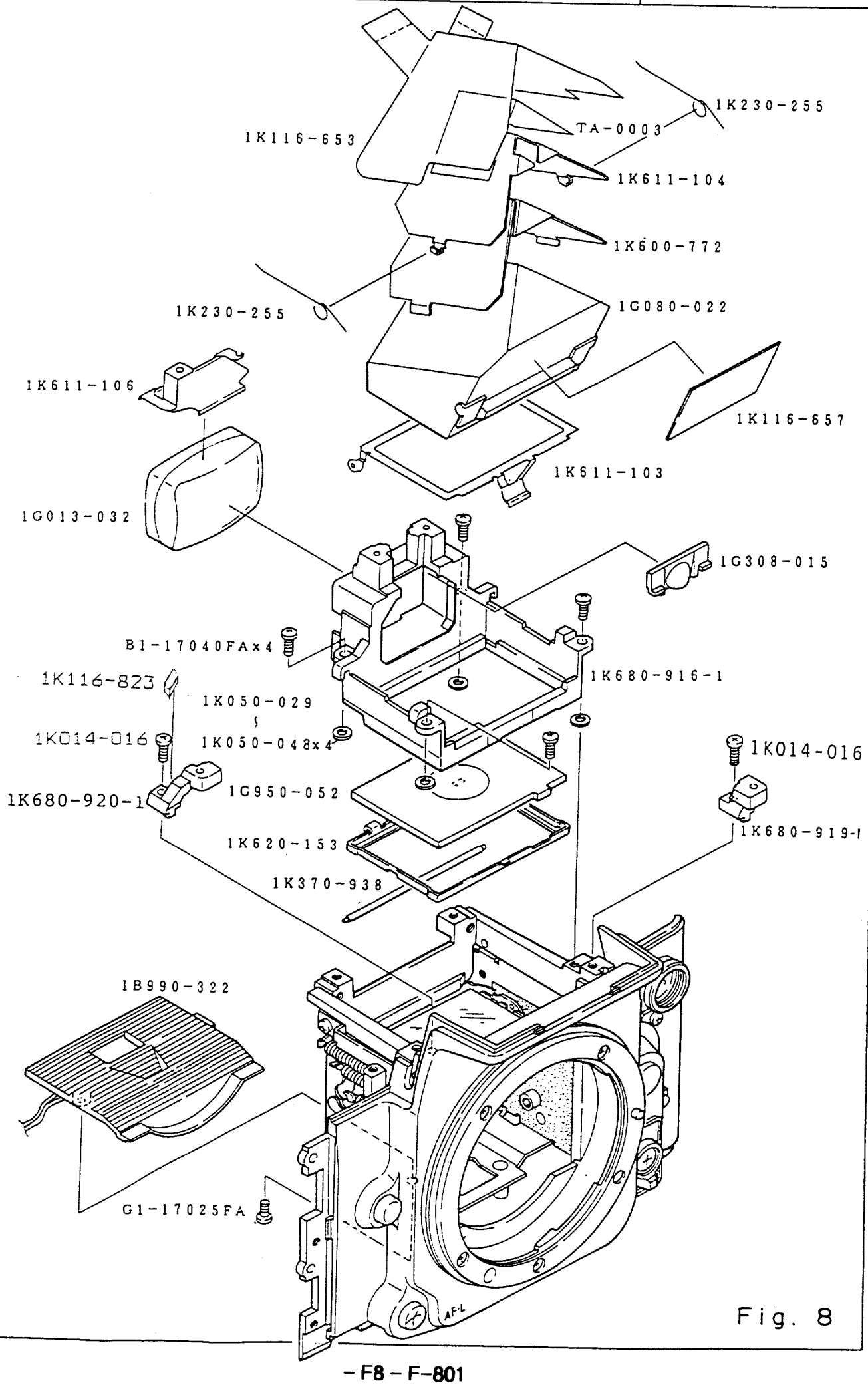

1K116-653
TA-0003
1K230-255
1K611-104
1K600-772
1K230-255
1G080-022
1K611-106
1K116-657
1K611-103
1G013-032
1G308-015
B1-17040FAx4
1K116-823
1K050-029
1K050-048x4
1K680-916-1
1K014-016
1K014-016
1K680-920-1
1G950-052
1K680-919-1
1K620-153
1K370-938
1B990-322
G1-17025FA
AF-L

Fig. 8

内LCD・外LCD・メインFPC部

FAA22051-R.3241.B

INTERNAL & EXTERNAL LCD, MAIN FPC

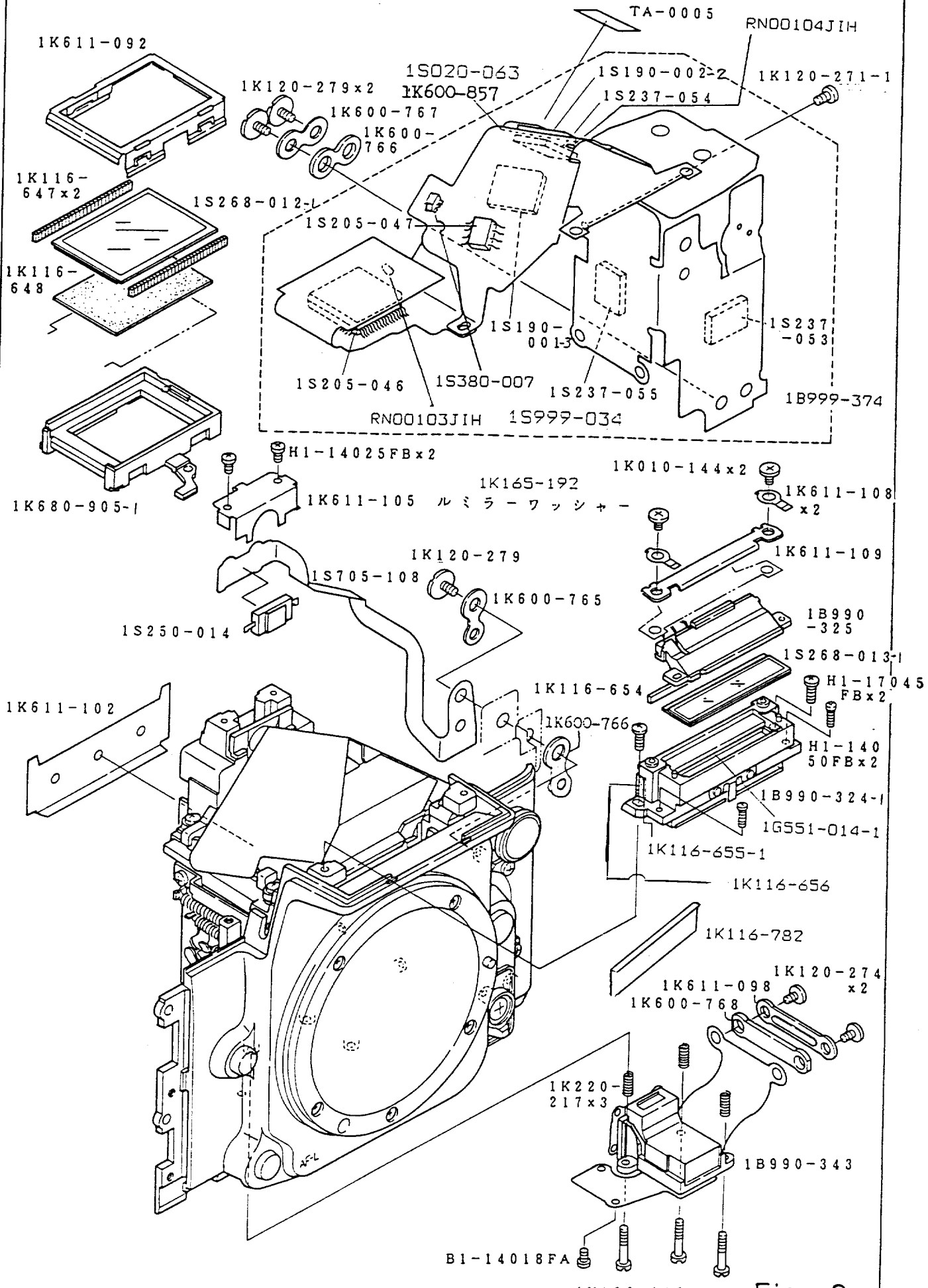
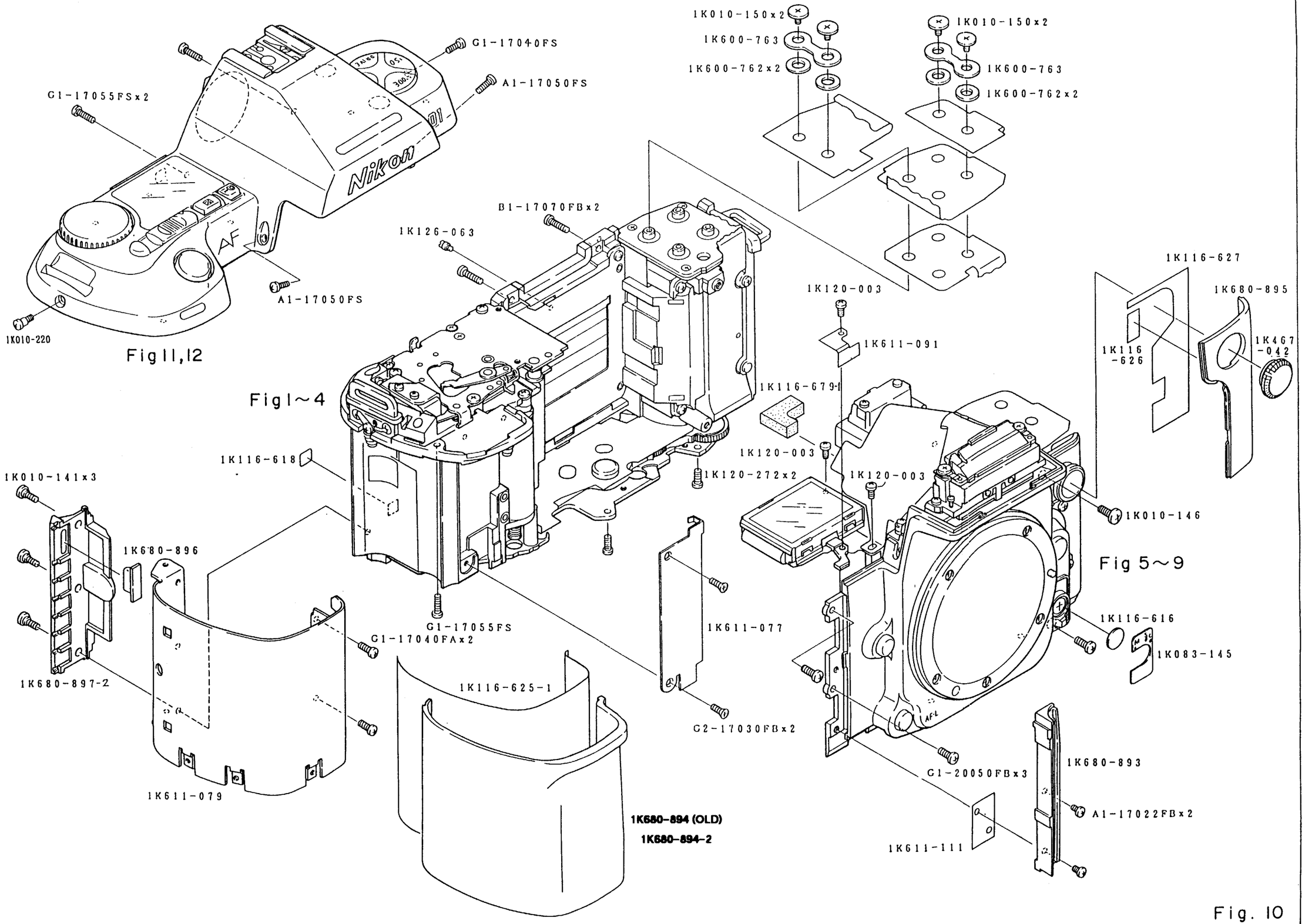



Fig. 9


1K010-150×2
1K600-763
1K600-762×2
1K010-150×2
1K600-763
1K600-762×2
G1-17040FS
A1-17050FS
G1-17055FS×2
Nikon
AF
A1-17050FS
1K010-220
Fig 11,12
B1-17070FB×2
1K126-063
1K120-003
1K611-091
1K116-679-1
1K116-627
1K680-895
1K116-626
1K467-042
Fig 1~4
1K116-618
1K120-003
1K120-272×2
1K120-003
1K010-146
1K010-141×3
1K680-896
Fig 5~9
1K116-616
1K083-145
1K680-897-2
G1-17055FS
G1-17040FA×2
1K611-077
1K116-625-1
G2-17030FB×2
G1-20050FB×3
1K680-893
A1-17022FB×2
1K611-079
1K680-894 (OLD)
1K680-894-2
1K611-111
Fig. 10

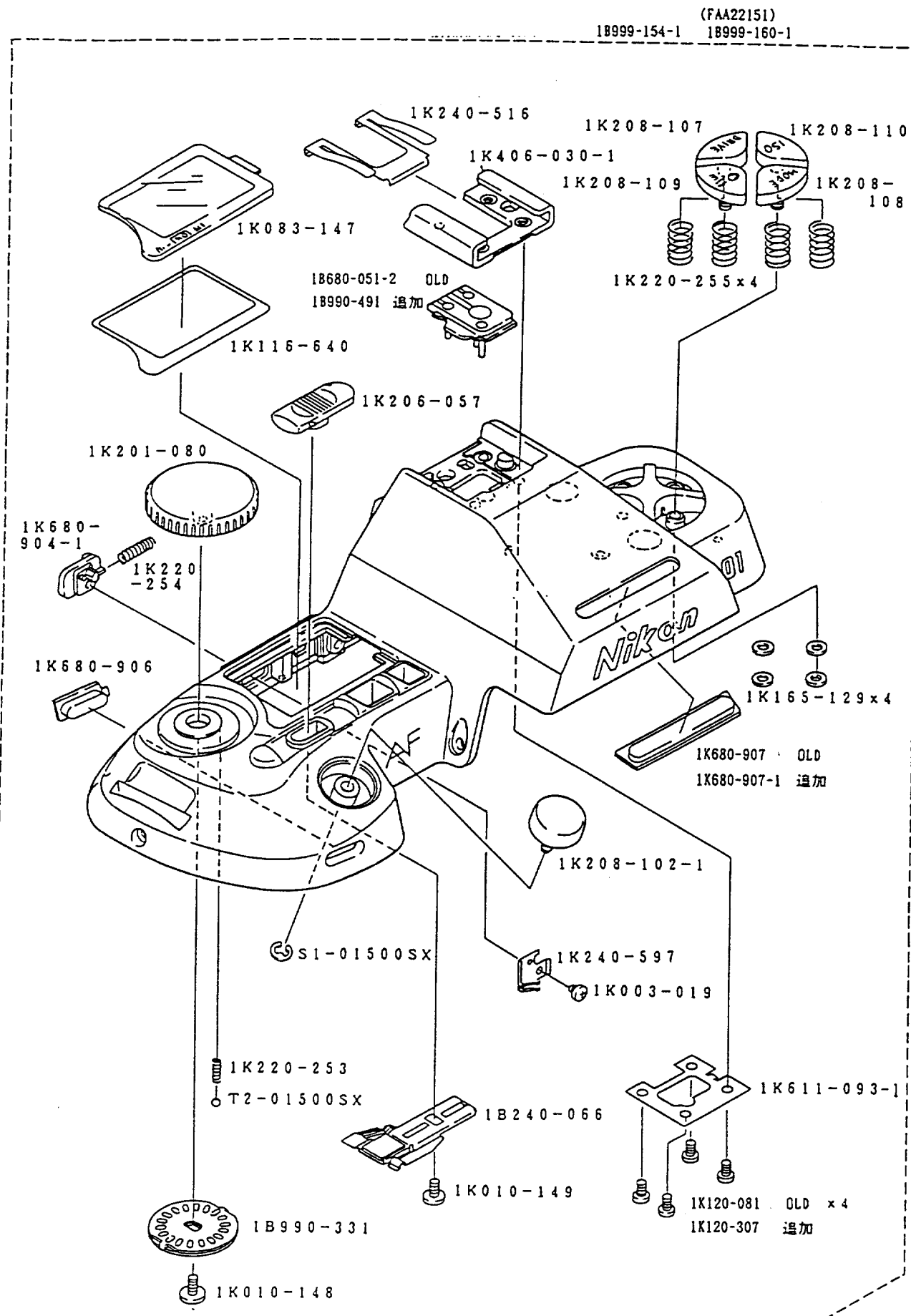
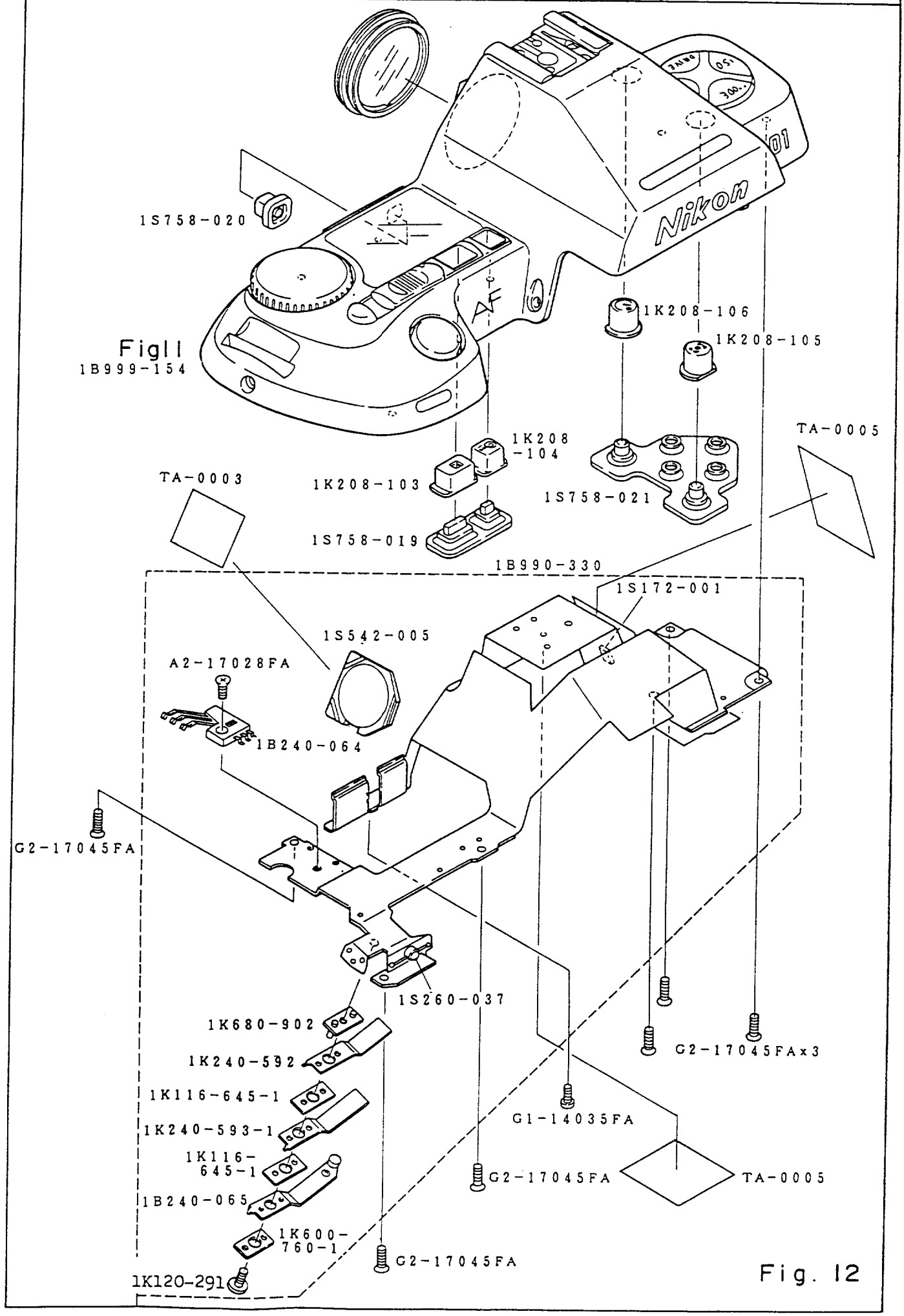

(FAA22151)
1B999-154-1
1B999-160-1
1K240-516
1K208-107
1K208-110
1K406-030-1
1K208-109
1K208-108
1K083-147
1K220-255x4
1B680-051-2 OLD
1B990-491 追加
1K116-640
1K206-057
1K201-080
1K680-904-1
1K220-254
1K680-906
1K165-129x4
1K680-907 OLD
1K680-907-1 追加
1K208-102-1
S1-01500SX
1K240-597
1K003-019
1K220-253
T2-01500SX
1B240-066
1K611-093-1
1K010-149
1K120-081 OLD x4
1K120-307 追加
1B990-331
1K010-148
Nikon
AF

Fig. 11


1S758-020
Nikon
AF
1K208-106
1K208-105
Figll
1B999-154
1K208
-104
1K208-103
1S758-019
1S758-021
TA-0005
TA-0003
1B990-330
1S172-001
1S542-005
A2-17028FA
1B240-064
G2-17045FA
1S260-037
1K680-902
1K240-592
1K116-645-1
1K240-593-1
1K116-
645-1
1B240-065
1K600-
760-1
1K120-291
G2-17045FAx3
G1-14035FA
G2-17045FA
TA-0005
G2-17045FA
Fig. 12

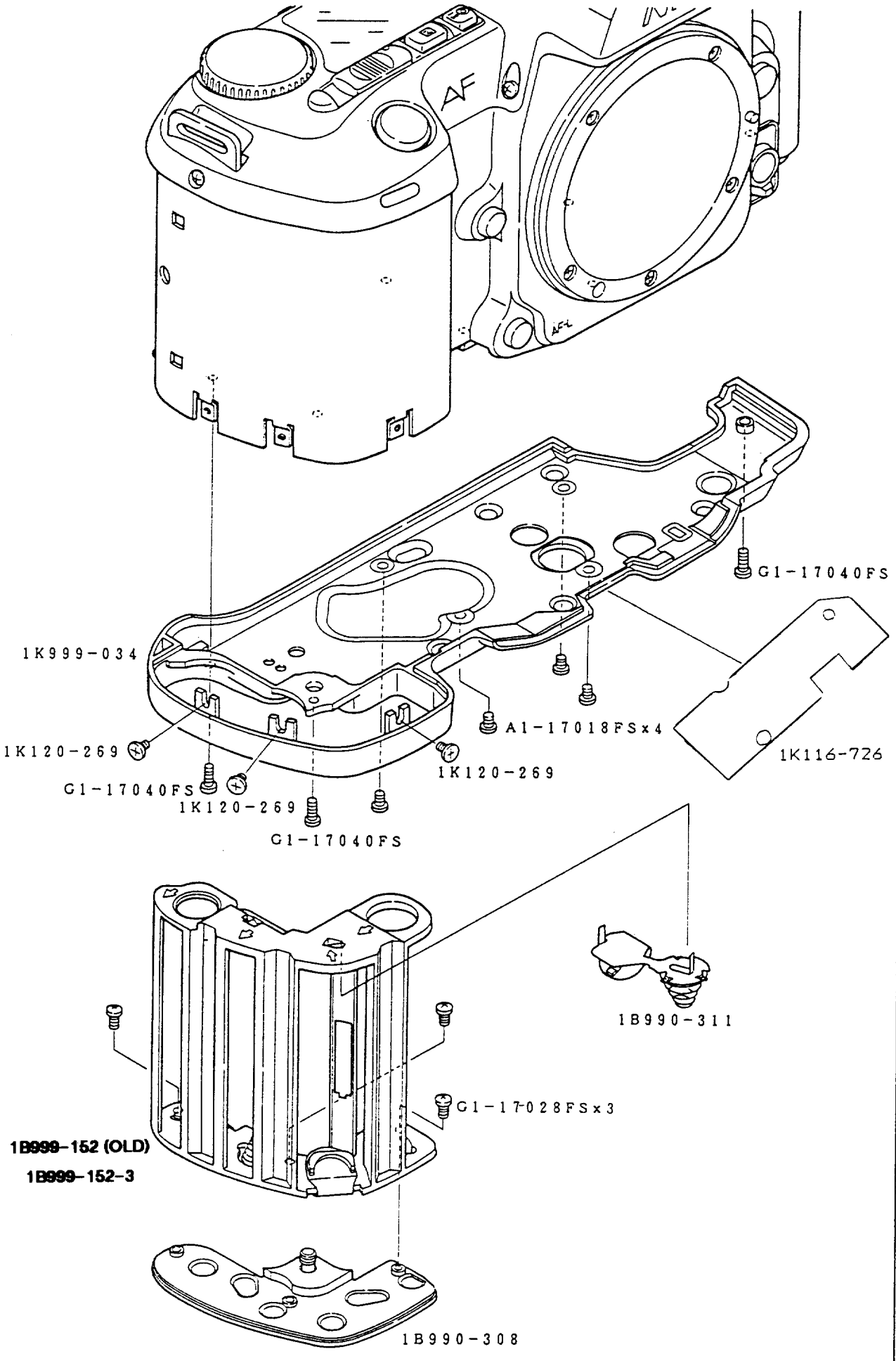

AF
G1-17040FS
1K999-034
A1-17018FS×4
1K116-726
1K120-269
1K120-269
G1-17040FS
1K120-269
G1-17040FS
1B990-311
G1-17028FS×3
1B999-152 (OLD)
1B999-152-3
1B990-308

Fig. 13

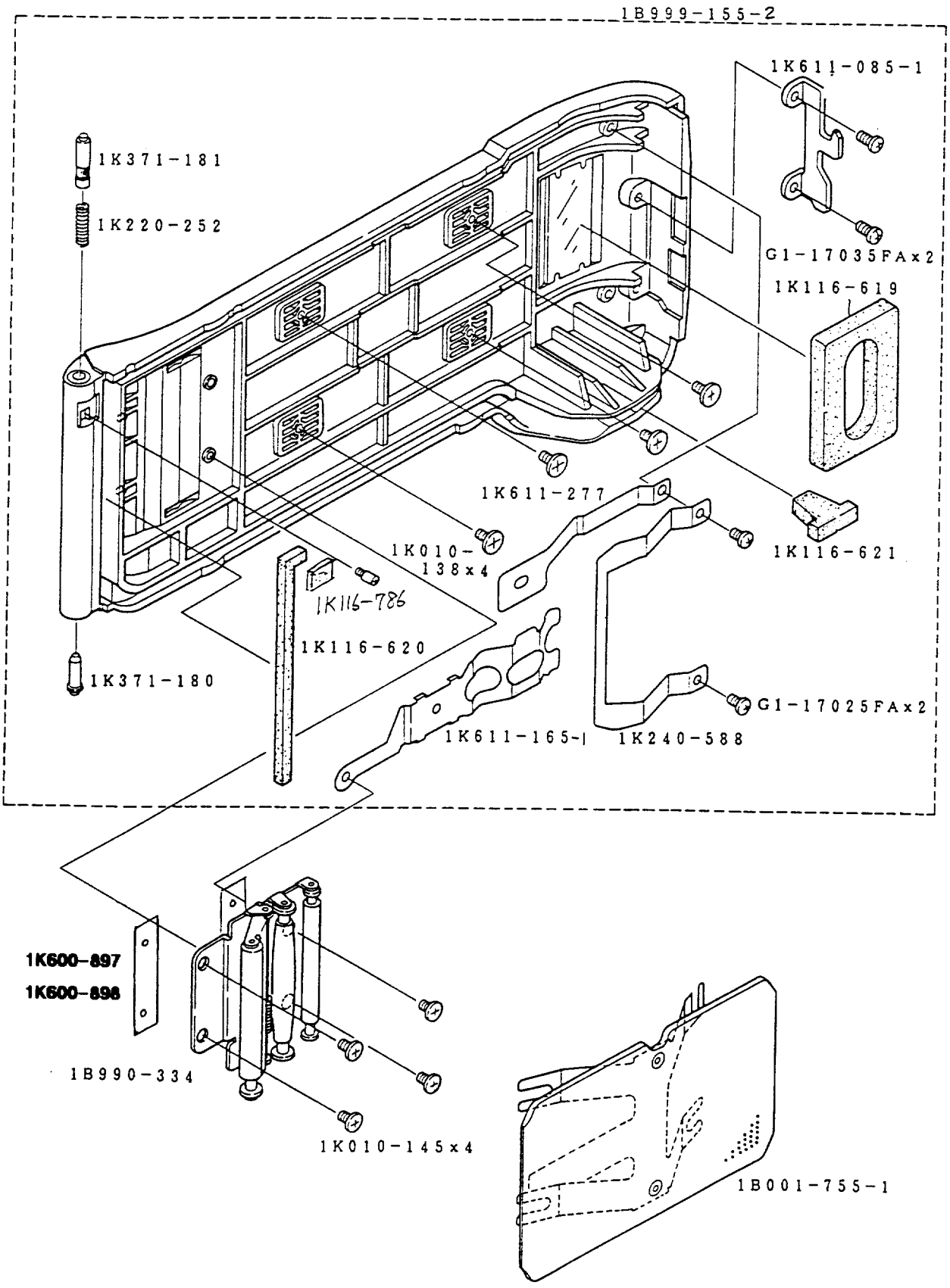

1B999-155-2
1K611-085-1
1K371-181
1K220-252
G1-17035FAx2
1K116-619
1K611-277
1K010-138x4
1K116-621
1K116-786
1K116-620
1K371-180
1K611-165-1
1K240-588
G1-17025FAx2
1K600-897
1K600-898
1B990-334
1K010-145x4
1B001-755-1

Fig. 14

部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K003-019 | 556 | AEロックSWビス<br>Screw, AE lock SW | 1 | 1B999-154-[<br>1B999-160-[ | 11 | ○△ | | 10 |
| 1K010-138 | 624 | 圧板バネビス<br>Screw, pressure plate spring | 4 | 1B999-155-2 | 14 | ○△ | | 10 |
| 1K010-139 | 841 | 上地板止めビス<br>Screw, film-advance lever unit | 6 | | 3 | ○ | | 10 |
| 1K010-140 | 842 | F検知SWビス<br>Screw, film detection SW | 1 | | 2 | ○ | | 10 |
| 1K010-141 | 844 | 裏蓋ヒンジカバー止めビス<br>Screw, camera back hinge cover | 3 | | 10 | ○ | | 10 |
| 1K010-220 | 845 | 上カバー止めビス<br>Top cover screw | 1 | | 10 | ○ | RP-9128 | 10 |
| 1K010-143 | 846 | 底基板止めビス<br>Screw, bottom base plate | 3 | | 4 | ○ | | 10 |
| 1K010-144 | 847 | 内部LCD圧接ビス<br>Screw, LCD press-contact | 2 | | 9 | ○ | | 10 |
| 1K010-145 | 848 | ロット軸基板止めビス<br>Screw, lot shaft base plate | 4 | 1B999-155-2 | 14 | ○△ | | 10 |
| 1K010-146 | 849 | 前板取付ビス<br>Screw, front plate | 1 | | 10 | ○ | | 10 |
| 1K010-148 | 517 | 電子ダイヤルビス<br>Electrical dial screw | 1 | 1B999-154-[<br>1B999-160-[ | 11 | ○△ | | 10 |
| 1K010-149 | 549 | 電源SW取付ビス<br>Power SW screw | 1 | 1B999-154-[<br>1B999-160-[ | 11 | ○△ | | 10 |
| 1K010-150 | 284 | 圧接ビス<br>Press-contact screw | 4 | | 10 | ○ | | 10 |
| *1K050-022 | 801 | チリトリ調整ワッシャー<br>Washer | 0-1 | 1B999-159 | 1 | ○△ | F-401 | 10 |
| *1K050-029 | 811 | 4 6. 5調整ワッシャー<br>Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| 1K050-030 | 811 | 4 6. 5調整ワッシャー<br>Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| 1K050-031 | 811 | 4 6. 5調整ワッシャー<br>Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-032 | 811 | 4 6. 5調整ワッシャー<br>Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| | | | | | | | | |
| 1K014-016 | | 小ネジ<br>Screw | 2 | | 8 | ○ | RP-9101 | 10 |

部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| *1K050-033 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-034 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-035 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-036 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-037 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-038 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-039 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-040-1 (1K050-040) | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-041 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-042-1 (1K050-042) | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-043-1 (1K050-043) | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-044 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-045-1 (1K050-045) | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 RP-2238 | 10 |
| *1K050-046-1 (1K050-046) | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 RP-2238 | 10 |
| *1K050-047-1 (1K050-047) | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 RP-2238 | 10 |
| *1K050-048 | 811 | 46.5調整ワッシャー Washer | 0-4 | | 8 | ○ | F-401 | 10 |
| *1K050-112 | 801 | チリトリ調整ワッシャー Washer | 0-4 | | 1 | ○ | F-401 | 10 |
| *1K050-144 | 801 | チリトリ調整ワッシャー Washer | 0-4 | | 1 | ○ | F-401 | 10 |
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部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| *1K060-023 | 826 | チャージレバー軸Eリング<br>E-ring, charging lever shaft | 1 | 1B999-153 | 3 | ○△ | | 10 |
| 1K060-047 | 824 | 絞り制御ギア軸Eリング<br>E-ring, aperture control gear shaft | 4 | 1B999-159 | 6 | ○△ | | 10 |
| 1K060-048 | 825 | レンズ着脱ピンEリング<br>E-ring, lens release pin | 4 | 1B990-294<br>1B999-159 | 5 | ○△ | RP-8913 | 10 |
| 1K060-049 | 827 | チャージカム軸Eリング<br>E-ring, charging cam shaft | 1 | 1B999-153 | 3 | ○△ | | 10 |
| 1K083-145 | 954 | AFモードSW銘板<br>Focus mode plate | 1 | | 10 | ○ | | 5 |
| 1K083-147 | 566 | 外部LCD窓<br>LCD window | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K100-118 | 231 | 耳環A (巻き上げ側)<br>Eyelet A (film advance side) | 1 | | 1 | ○ | | 5 |
| 1K100-119 | 232 | 耳環B (巻き戻し側)<br>Eyelet B (rewind side) | 1 | | 1 | ○ | | 5 |
| 1K116-124 | 675 | ペンタ押さえシート接着テープ sheet<br>Adhesive tape, pentaprism retainer | 1 | | 8 | × | TA-0003 | 1 |
| *1K116-245-1 | 416 | ミラー受けモルトA<br>Mirror holder sponge A | 1 | 1B999-159 | 5 | ○△ | F-501<br>F-801s<br>F-90 | 5 |
| *1K116-249-1 | 417 | ミラー受けモルトB<br>Mirror holder sponge B | 1 | 1B999-159 | 5 | ○△ | F-501<br>F-801s<br>F-90 | 5 |
| 1K116-616 | 953 | AFモードSWノブカバー<br>Cover, focus mode SW knob | 1 | | 10 | ○ | | 10 |
| 1K116-617 | 146 | シーケンスモーター停止SW絶縁板A<br>Insulation plate A | 1 | 1B999-153 | 3 | ○△ | | 10 |
| 1K116-618 | 170 | フィルム位置マーク<br>Film leader index mark | 1 | | 10 | ○ | | 10 |
| 1K116-619 | 607 | 裏蓋窓モルト<br>Sponge, camera back window | 1 | 1B999-155-2 | 14 | ○△ | | 5 |
| 1K116-620 | 628 | 裏蓋軸部遮光モルト<br>Light-tight sponge, camera back shaft | 1 | 1B999-155-2 | 14 | ○△ | | 5 |
| 1K116-621 | 629 | 裏蓋底部遮光モルト<br>Light-tight sponge, camera back bottom | 1 | 1B999-155-2 | 14 | ○△ | | 5 |
| 1K116-622 | 665 | L基板絶縁テープ<br>Insulation tape, base plate L | 1 | 1B999-159 | 6 | × | TA-0003 | 5 |
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# 部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K116-624 | 667 | 接眼部遮光モルト<br>Light-tight sponge, eyepiece | 1 | | 1 | ○ | | 5 |
| 1K116-625-1 | 671 | グリップゴム接着テープA<br>Adhesive tape A, grip rubber | 1 | | 10 | ○ | | 5 |
| 1K116-626 | 673 | 巻き戻し側ゴム接着テープA<br>Adhesive tape A, rewind side rubber | 1 | | 10 | ○ | | 5 |
| 1K116-627 | 674 | 巻き戻し側ゴム接着テープB<br>Adhesive tape B, rewind side rubber | 1 | | 10 | ○ | RP-8824 | 10 |
| *1K116-632 | 680 | ブザー固定テープ<br>Buzzer tape | 1 | | 12 | × | TA-0003 | 5 |
| | | | | | | | | |
| 1K116-643 | 694 | 電池室遮光テープ<br>Light-tight tape, battery chamber | 1 | | 12 | × | TA-0005 | |
| 1K116-640 | 690 | LCD窓接着テープ<br>Adhesive tape, LCD window | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K116-642 | 692 | シュー接点絶縁テープ<br>Insulation tape, shoe contact | 2 | 1B999-154-1<br>1B999-160-1 | 12 | × | TA-0005 | 5 |
| 1K116-645-1 | 534 | レリーズ接片絶縁シート<br>Insulation sheet, release contact | 2 | 1B990-330 | 12 | ○△ | | 10 |
| 1K116-647 | 563 | 外部LCDゼブラゴム<br>LCD rubber | 2 | | 9 | ○ | | 10 |
| 1K116-648 | 569 | LCD受けシート<br>LCD sheet | 1 | | 9 | ○ | | 5 |
| 1K116-649-1 | 593 | 上カバー防滴シール<br>Drip-proof seal, top cover | 1 | | 1 | ○ | | 5 |
| 1K116-650 | 236 | 耳環B防滴シール<br>Drip-proof seal, eyelet B | 1 | | 1 | ○ | RP-9331 | 1 |
| 1K116-651 | 241 | 電池室遮光テープ<br>Light-tight tape, battery chamber | 2 | | 1 | × | TA-0006 | 10 |
| 1K116-652 | 418 | L基板植毛紙<br>Flocked sheet, base plate L | 1 | 1B999-159 | 6 | ○△ | | 5 |
| 1K116-653 | 429 | ペンタ押さえ絶縁シート<br>Insulation sheet, pentaprism | 1 | | 8 | ○ | | 5 |
| 1K116-654 | 459 | 内部LCDゼブラゴム<br>LCD rubber | 1 | | 9 | ○ | | 5 |
| 1K116-782 | | 植毛紙 Wooden cloth | 1 | | 9 | ○ | RP-8838 | 5 |
| 1K116-655-1 | (未手配) | 遮光板 Light-tight plate | 1 | 1B990-324-1 | 9 | ○△ | RP-9014 | 1 |
| 1K116-656 | | モルト Sponge<br>(未手配) | 1 | 1B990-324-1 | 9 | ○△ | RP-9331 | 1 |

部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K116-657 | 463 | ペンタ反射防止シート<br>Pentaprism reflex-proof sheet | 1 | | 8 | ○ | | 5 |
| 1K116-660 | 695 | SPDフレキ押さえテープ<br>Tape | 1 | | 9 | × | TA-0005 | 5 |
| 1K116-665 | 346 | 植毛紙<br>Flocked sheet | 1 | 1B999-159 | 6 | ○△ | | 5 |
| 1K116-678 | 328 | 振動防止モルト<br>Vibration-proof sponge | 2 | 1B999-159 | 6 | ○△ | | 10 |
| *1K116-679-1 | 666-1 | 接眼部遮光モルト<br>Light-tight sponge, eyepiece | 1 | | 10 | ○ | RP-9117<br>F-801S | 5 |
| 1K116-786 | | 遮光モルト Light baffle sponge | 1 | 1B999-155-2 | 14 | ○ | RP-8838 | 10 |
| 1K116-726 | 699 | 底カバー保護シート Seal, bottom cover | 1 | 1K999-034 | 13 | ○△ | RP-8838 | |
| 1K116-820 | 643 | 植毛紙<br>Woolen cloth | 1 | | 2 | ○ | RP-8838 | 5 |
| 1K116-823 | 464 | ネオプレンゴム<br>Rubber | 2 | | 8 | ○ | RP-8902 | 10 |
| *1K120-003 | 780 | LCDハウジング取付ビス<br>LCD housing screw | 3 | | 10 | ○ | | 10 |
| *1K120-017-1 | 928 | AF基板固定ビスA<br>Screw A, AF base plate | 1 | 1B999-159 | 5 | ○△ | | 10 |
| *1K120-086 | 790 | パトローネ受けビス<br>Film cartridge screw | 1 | 1B999-159 | 1 | ○△ | | 10 |
| *1K120-102-1 | 926 | AF基板柱ビス<br>Screw, AF base plate | 2 | 1B999-159 | 5 | ○△ | | 10 |
| ~~*1K120-138~~<br>1K120-291 | 539 | レリーズ接片モード座ビス<br>Screw, release contact blade | 1 | 1B990-330 | 12 | ○△ | RP-8838 | 5 |
| *1K120-226 | 951 | AFモードSWノブビス<br>Screw, focus mode SW knob | 1 | | 7 | ○ | F-501 | 10 |
| 1K120-268 | 929 | AF基板固定ビスB<br>Screw B, AF base plate | 1 | 1B999-159 | 5 | ○△ | | 10 |
| 1K120-269 | 781 | 底カバー取付ビスC<br>Bottom cover screw | 2 | | 13 | ○ | RP-8846 | 10 |
| 1K120-270 | 785 | 手動絞りSWビス<br>Screw, manual aperture SW | 1 | 1B999-317 | 7 | ○△ | | 10 |
| 1K120-271-1 | 786 | メインFPC止めビス<br>Main FPC screw | 1 | | 9 | ○ | | 10 |
| 1K120-272 | 787 | 底基板止めビス<br>Screw, bottom base plate | 2 | | 10 | ○ | | 10 |
| 1K120-021<br>1K120-307 | 706 | シュー止めビス<br>Shoe screw | 4 | 1B999-154-1<br>1B999-154-1 | 11 | ○△ | RP-8846<br>RP-9101 | 5 |

部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 考 ks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K120-273 | 788 | 巻き戻しフォークビス<br>Rewind fork screw | 1 | | 2 | ○ | | 10 |
| 1K120-274 | 294 | ＡＰＣ圧接ビス<br>Screw, APC press-contact | 2 | | 9 | ○ | | 10 |
| 1K120-275 | 507 | AF A/M Sモールド座ビス<br>Screw, focus mode selector mold base | 2 | 1B999-159 | 5, 6 | ○△ | | 10 |
| 1K120-279 | 289 | 前板圧接ビス<br>Screw, front plate press-contact | 3 | | 9 | ○ | | 10 |
| *1K123-046 | 473 | バヨネットビスA<br>Bayonet screw A | 4 | | 7 | ○ | | 10 |
| *1K123-104-1 | 475 | バヨネットビスB<br>Bayonet screw B | 1 | | 7 | ○ | F-501 | 10 |
| *1K123-118-1 (1K123-115) | 405 | ＡＦセンサー調整ビス<br>Adjustment screw, AF sensor | 3 | | 9 | ○ | RP-8838 | 10 |
| *1K126-063 | 178 | レールガイドビス<br>Rail guide screw | 1 | | 10 | ○ | F-401 | 10 |
| 1K126-080-1 (1K126-080) | 636 | 裏蓋軸着脱ビス<br>Screw, camera back shaft release | 1 | 1B999-155-2 | 14 | ○△ | RP-8838 | 10 |
| *1K130-249 | 789 | L基板止めビス<br>Screw, base plate L | 1 | 1B999-159 | 6 | ○△ | | 5 |
| 1K130-363 | 782 | フィルムモーター取付ビス<br>Screw, film advance motor | 2 | | 4 | ○ | | 10 |
| 1K130-364 | 783 | シーケンスモーター取付ビス<br>Sequence motor screw | 2 | | 3 | ○ | | 10 |
| 1K130-365 | 784 | スプロカバービス<br>Sprocket cover screw | 1 | | 2 | ○ | | 10 |
| 1K130-366 | 444 | レンズ着脱軸<br>Lens release shaft | 1 | 1B999-159 | 5 | ○△ | | 10 |
| 1K130-367 | 488 | Ｆ－Ｆｏ抵抗基板ビス<br>Screw, F-Fo resistance plate | 2 | | 7 | ○ | | 10 |
| *1K146-082 | 771 | ＡＦ縦レバー調整ビス<br>Adjustment screw, AF lever | 2 | 1B999-159 | 5 | ○△ | | 5 |
| 1K146-116 | 90 | 裏蓋ＳＷピン<br>Pin, camera back SW | 1 | | 4 | ○ | | 10 |
| 1K165-129 | 828 | ポリワッシャー<br>Washer | 4 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 10 |
| 1K201-079 | 950 | ＡＦモードＳＷノブ<br>Knob, focus mode SW | 1 | | 7 | ○ | | 5 |
| 1K165-192 | | ワッシャー<br>Washer | | | 9 | ○ | RP-9014 | 10 |

部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K201-080 | 515 | 電子ダイヤル<br>Electrical dial | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K206-056 | 91 | 裏蓋SWレバー<br>Lever, camera back SW | 1 | | 4 | ○ | | 5 |
| 1K206-057 | 541 | 電源SWレバー<br>Power SW lever | 1 | 1B999-154-1 | 11 | ○△ | | 5 |
| 1K206-058 | 223 | 裏蓋開閉キースライダー<br>Slider, camera back open/close key | 2 | | 2 | ○ | | 5 |
| 1K208-102-1 | 531 | レリーズ釦<br>Shutter release button | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K208-103 | 546 | 露出補正釦<br>Exposure compensation button | 1 | | 12 | ○ | | 5 |
| 1K208-104 | 547 | R釦<br>Rewind button | 1 | | 12 | ○ | | 5 |
| 1K208-105 | 583 | 測光切り換え釦<br>Metering switch button | 1 | | 12 | ○ | | 5 |
| 1K208-106 | 584 | セルフ釦<br>Self-timer button | 1 | | 12 | ○ | | 5 |
| 1K208-107 | 585 | ドライブ釦<br>Drive button | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K208-108 | 586 | モード釦<br>Mode selector button | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K208-109 | 587 | 多重撮影釦<br>Multiple exposure button | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K208-110 | 588 | ISO釦<br>ISO button | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K208-111 | 441 | レンズ着脱釦<br>Lens release button | 1 | 1B999-159 | 5 | ○△ | | 5 |
| 1K208-112 | 491 | AFロック釦<br>AF lock button | 1 | | 7 | ○ | | 5 |
| 1K208-113 | 351 | 手動絞り釦<br>Manual aperture button | 1 | 1B990-317 | 7 | ○△ | | 5 |
| *1K220-041-1 (1K220-041-1) | 446 | レンズ着脱ピンバネ<br>Spring, lens release pin | 1 | 1B999-159 | 5 | ○△ | RP-8338 | 10 |
| *1K220-201-1 | 445 | レンズ着脱軸バネ<br>Spring, lens release shaft | 1 | 1B990-159 | 5 | ○△ | F-501 | 5 |
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部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 emarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| *1K220-217 | 406 | AFセンサー調整バネ<br>Adjustment spring, AF sensor | 3 | | 9 | ○ | | 10 |
| 1K220-249 | 164 | 巻き戻しフォークバネ<br>Rewind fork spring | 1 | | 2 | ○ | | 10 |
| 1K220-252 | 637 | 裏蓋軸着脱バネ<br>Spring, camera back shaft release | 1 | 1B999-155-2 | 14 | ○△ | | 10 |
| 1K220-253 | 519 | 電子ダイヤルクリックバネ<br>Spring, electrical dial click | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 10 |
| 1K220-254 | 555 | AEロックバネ<br>AE lock spring | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 10 |
| 1K220-255 | 589 | 釦バネ<br>Spring | 4 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 10 |
| 1K220-259 | 353 | 手動絞り釦バネ<br>Spring, manual aperture button | 1 | 1B990-317 | 7 | ○△ | | 10 |
| *1K225-101-2<br>(1K225-101) | 313 | 絞り戻しバネ<br>Aperture reset spring | 1 | 1B999-159 | 6 | ○△ | RP-8838<br>F-401 | 5 |
| 1K225-171-1 | 137 | シーケンス係止解除バネ<br>Spring, sequence latch release | 1 | 1B999-153 | 3 | ○△ | | 10 |
| 1K225-174 | 222 | 裏蓋開閉キーバネ<br>Spring, camera back open/close key | 1 | | 2 | ○ | | 10 |
| 1K225-175 | 306 | ミラーアップ縦レバー戻しバネ<br>Spring, mirror-up lever reset | 1 | 1B999-159 | 6 | ○△ | | 10 |
| 1K225-176 | 310 | 絞りレバー駆動バネ<br>Spring, aperture lever actuating | 1 | 1B999-159 | 6 | ○△ | | 10 |
| ~~1K225-180~~<br>1K225-193 | 484 | F-Foバネ<br>F-Fo spring | 1 | 1B990-328 | 7 | ○△ | RP-8902 | 10 |
| 1K230-247 | 932 | AF横レバーバネ<br>Spring, AF lever | 1 | 1B001-786 | 5 | ○△ | | 10 |
| 1K230-249 | 143 | ソレノイドレバーバネ<br>Solenoid lever spring | 1 | 1B999-153 | 3 | ○△ | | 10 |
| 1K230-250 | 148 | シーケンスモーター停止SWワイヤ<br>Wire, sequence motor Stop SW | 1 | 1B999-153 | 3 | ○△ | | 10 |
| 1K230-251 | 182 | ガイド板バネ<br>Guide plate spring | 1 | | 2 | ○ | | 10 |
| 1K230-254 | 410 | 主ミラーダウンバネ<br>Mirror-down spring | 1 | 1B999-159 | 6 | ○△ | | 10 |
| | | | | | | | | |
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部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K230-255 | 427 | ペンタ押さえバネ<br>Pentaprism retainer spring | 2 | | 8 | ○ | | 10 |
| 1K230-256 | 305 | ミラーアップバネ<br>Mirror-up spring | 1 | 1B999-159 | 6 | ○△ | | 10 |
| 1K230-257 | 324 | シャッターレリーズレバーバネ<br>Spring, shutter release lever | 1 | 1B999-159 | 6 | ○△ | | 10 |
| 1K230-258-1 | 341 | 絞りカウンター円板バネ<br>Spring, aperture counter disk | 1 | 1B999-159 | 6 | ○△ | | 10 |
| 1K230-259-1 | 359 | リセット大レバーバネ<br>Spring, large reset lever | 1 | 1B990-317 | 7 | ○△ | | 10 |
| 1K230-260 | 362 | リセットレバーバネ<br>Reset lever spring | 1 | 1B990-317 | 7 | ○△ | | 10 |
| | | | | | | | | |
| *1K233-052 | 397 | サブミラーバネ<br>Sub-mirror spring | 1 | 1B990-342 | 6 | ○△ | F-501 | 5 |
| 1K240-468-2 | 472 | バヨネットバネ<br>Bayonet spring | 1 | | 7 | ○ | F-501<br>RP-8838 | 10 |
| *1K240-516 | 573 | シューバネ<br>Shoe spring | 1 | 1B999-154-1 | 11 | ○△ | | 5 |
| 1K240-588 | 631 | パトローネ規制バネ<br>Film cartridge stopper spring | 1 | 1B999-155-2 | 14 | ○△ | | 10 |
| 1K240-592 | 535 | レリーズ共通接片<br>Release contact blade | 1 | 1B990-330 | 12 | ○△ | | 5 |
| 1K240-593-1 | 536 | 半押しSW接片<br>Pre-release SW contact blade | 1 | 1B990-330 | 12 | ○△ | | 5 |
| 1K240-597 | 557 | AEロックSW押さえ板<br>AE lock SW retainer plate | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K240-599 | 217 | パトローネ押さえバネ<br>Spring, film cartridge retainer | 1 | | 1 | ○ | | 5 |
| 1K240-603 | 365 | 手動絞りSW A<br>Manual aperture SW A | 1 | 1B990-317 | 7 | ○△ | | 5 |
| 1K240-608 | 96 | 電池SW接片<br>Battery switch contact | 1 | | 4 | ○ | | 5 |
| 1K260-371 | 910 | AFカップリングギア<br>AF coupling gear | 1 | | 5 | ○ | | 5 |
| | | | | | | | | |
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部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K260-373 | 109 | 減速ギアR<br>Reducing gear R | 1 | | 3 | ○ | | 5 |
| 1K260-375 | 161 | 巻き戻しフォークギア<br>Rewind fork gear | 1 | | 2 | ○ | | 5 |
| 1K260-376 | 165 | 巻き戻し連結ギアL<br>Rewind coupling gear L | 1 | | 2 | ○ | | 5 |
| 1K260-377 | 50 | フィルム給送モーター減速ギアF<br>Reducing gear F, film advance motor | 1 | | 4 | ○ | | 5 |
| 1K260-378 | 52 | フィルム給送モーター減速ギアH<br>Reducing gear H, film advance motor | 1 | | 3 | ○ | | 5 |
| 1K260-379 | 53 | フィルム給送モーター減速ギアW<br>Reducing gear W, film advance motor | 1 | | 4 | ○ | | 5 |
| 1K260-380 | 57 | スプロケットギア<br>Sprocket gear | 1 | | 4 | ○ | | 5 |
| ~~1K260-381~~<br>1K260-381-1 | 58 | 基準ギア<br>Reference gear | 1 | | 4 | ○ | RP-8846 | 5 |
| 1K260-382 | 59 | カウンタギア<br>Counter gear | 1 | | 4 | ○ | | 5 |
| 1K260-387 | 85 | 巻き戻し連結ギアK<br>Rewind coupling gear K | 1 | | 4 | ○ | | 5 |
| 1K260-397 | 339 | 絞りカウンタ円板<br>Aperture counter disk | 1 | 1B999-159 | 6 | ○△ | | 5 |
| 1K260-452 | 921 | AFカウンター連結ギア<br>AF counter connecting gear | 1 | 1B999-159 | 5 | ○△ | | 5 |
| 1K275-061 | 55 | スプール<br>Spool | 1 | | 3 | ○ | | 5 |
| 1K275-062-1<br>(1K275-062) | 56 | スプロケット<br>Sprocket | 1 | | 3 | ○ | RP-8838 | 5 |
| 1K277-080 | 908 | AFギア4, 5<br>AF gear 4,5 | 1 | | 5 | ○ | | 5 |
| 1K277-081 | 909 | AFギア6, 7<br>AF gear 6,7 | 1 | | 5 | ○ | | 5 |
| 1K277-083 | 106 | 減速ギアO<br>Reducing gear O | 1 | | 3 | ○ | | 5 |
| 1K277-084 | 107 | 減速ギアP<br>Reducing gear P | 1 | | 3 | ○ | | 5 |
| | | | | | | | | |
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部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K277-085 | 108 | 減速ギアQ<br>Reducing gear Q | 1 | | 3 | ○ | | 5 |
| 1K277-086 | 47 | フィルム給送モーター減速ギアA<br>Reducing gear A, film advance motor | 1 | | 4 | ○ | | 5 |
| 1K277-087 | 48 | フィルム給送モーター減速ギアB<br>Reducing gear B, film advance motor | 1 | | 4 | ○ | | 5 |
| 1K277-088 | 49 | フィルム給送モーター減速ギアC<br>Reducing gear C, film advance motor | 1 | | 4 | ○ | | 5 |
| 1K277-089 | 51 | フィルム給送モーター減速ギアG<br>Reducing gear G, film advance motor | 1 | | 4 | ○ | | 5 |
| 1K302-044 | 952 | AFモードSWカム<br>AF mode SW cam | 1 | 1B999-159 | 5 | ○△ | | 5 |
| 1K310-064 | 224 | 裏蓋開閉キーロックレバー<br>Lever, camera back open/close key lock | 1 | | 2 | ○ | | 5 |
| 1K360-030 | 183 | ガイド板軸<br>Guide plate shaft | 1 | | 2 | ○ | | 5 |
| *1K370-938 | 423 | スクリーン枠支持軸<br>Shaft, screen frame support | 1 | | 8 | ○ | | 5 |
| 1K371-150 | 911 | AFカップリング軸<br>AF coupling shaft | 1 | 1B999-159 | 5 | ○△ | | 5 |
| 1K371-168 | 166 | 巻き戻し連結軸<br>Rewind coupling shaft | 1 | | 2 | ○ | | 5 |
| | | | | | | | | |
| 1K371-180 | 634 | 裏蓋軸A<br>Camera back shaft A | 1 | 1B999-155-2 | 14 | ○△ | | 5 |
| 1K371-181 | 635 | 裏蓋軸B<br>Camera back shaft B | 1 | 1B999-155-2 | 14 | ○△ | | 5 |
| 1K371-182 | 216 | DX接点<br>DX contact | 6 | | 1 | ○ | | 10 |
| 1K371-184 | 443 | レンズ着脱ピン<br>Lens release pin | 1 | 1B999-159 | 5 | ○△ | | 5 |
| | | | | | | | | |
| 1K404-091 | 471 | バヨネット<br>Bayonet | 1 | | 7 | ○ | | 5 |
| | | | | | | | | |
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部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| *1K406-030-1 (1K405-030) | 571 | シュー<br>Shoe | 1 | 1B999-154-1 | 11 | ○△ | RP-8838 | 5 |
| *1K467-042 | 469 | リモートコネクターキャップ<br>Remote connector cap | 1 | | 10 | ○ | F-301<br>F-501 | 5 |
| 1K600-857 | 272 | メインFPC裏打板<br>Plate for main FPC | 1 | 1S020-063 | 9 | ○△ | RP-8913 | 5 |
| *1K600-537 | 442 | レンズ着脱板<br>Lens release plate | 1 | 1B999-159 | 5 | ○△ | F-501 | 5 |
| 1K600-755 | 189 | F検知絶縁板<br>Insulation plate, film detection | 1 | | 2 | ○ | | 10 |
| 1K600-756 | 191 | F検知絶縁板<br>Insulation plate, film detection | 1 | | 2 | ○ | | 10 |
| 1K600-760 | 538 | レリーズSW接片押さえ板<br>Retainer plate, release SW blade | 1 | 1B990-330 | 12 | ○△ | | 5 |
| 1K600-762 | 282 | 圧接ゴム<br>Press-contact rubber | 2 | | 10 | ○ | | 10 |
| 1K600-763 | 283 | 圧接押さえ板<br>Press-contact retainer plate | 2 | | 10 | ○ | | 10 |
| 1K600-764 | 285 | AF接点FPC圧接ゴム<br>FPC press-contact rubber | 1 | | 9 | ○ | RP-9006 | 10 |
| 1K600-765 | 286 | AF接点FPC圧接板<br>FPC press-contact plate | 1 | | 9 | ○ | | 10 |
| 1K600-766 | 287 | AF接点FPC圧接ゴム<br>FPC press-contact rubber | 2 | | 9 | ○ | RP-9006 | 10 |
| 1K600-767 | 288 | AF基板FPC圧接板<br>FPC press-contact plate | 1 | | 9 | ○ | | 10 |
| 1K600-768 | 292 | AP2 FPC圧接ゴム<br>AP2 FPC press-contact rubber | 1 | | 9 | ○ | | 10 |
| 1K600-772 | 428 | ペンタ押さえシート<br>Pentaprism retainer sheet | 1 | | 8 | ○ | | 5 |
| 1K600-775 | 368 | 手動絞りSW絶縁A<br>Insulator A, monual aperture SW | 1 | 1B990-317 | 7 | ○△ | | 10 |
| 1K611-076 | 145 | シーケンスモーター停止SW<br>Sequence motor stop SW | 1 | 1B999-153 | 3 | ○△ | | 5 |
| 1K611-077 | 175 | 実装カバー板<br>Cover plate | 1 | | 10 | ○ | | 5 |
| 1K600-897 | 626 | ロッド軸調整板A<br>ROD SHAFT ADJUSTING PLATE A | 1 | 1B999-155-2 | 14 | ○△ | RP-8838 | 5 |
| 1K600-898 | 627 | ロッド軸調整板B<br>ROD SHAFT ADJUSTING PLATE B | 1 | 1B999-155-2 | 14 | ○△ | RP-8838 | 5 |

# 部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 1K611-079 | 36 | グリップ<br>Grip | 1 | | 10 | ○ | | 1 |
| 1K611-085-1<br>(1K611-085) | 609 | 裏蓋爪<br>Camera back latch | 1 | 1B999-155-2 | 14 | ○△ | RP-8838 | 5 |
| 1K611-091 | 559 | コード押さえ板<br>Wire retainer plate | 1 | | 10 | ○ | | 5 |
| 1K611-092 | 562 | 外部ＬＣＤ押さえ板<br>LCD retainer plate | 1 | | 9 | ○ | | 5 |
| ~~1K611-093~~<br>1K611-093-1 | 576 | シュー裏打ち板<br>Shoe backing plate | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | RP-9014 | 5 |
| 1K611-094 | 221 | 裏蓋開閉キー板<br>Camera back open/close key plate | 1 | | 2 | ○ | | 1 |
| 1K611-095 | 235 | 耳環Ｂアース板<br>Earth plate, eyelet B | 1 | | 1 | ○ | | 5 |
| 1K611-098 | 293 | ＡＰ２　ＦＰＣ圧接押板<br>Retainer plate, AP2 FPC press-contact | 1 | | 9 | ○ | | 5 |
| 1K611-099-1 | 296 | インダクタ保持板<br>Inductor support plate | 1 | | 4 | ○ | | 5 |
| 1K611-102 | 413 | ミラー後チタン板<br>Titanium plate | 1 | | 9 | ○ | | 5 |
| 1K611-103 | 425 | 視野枠<br>Viewfield frame | 1 | | 8 | ○ | | 5 |
| 1K611-104 | 426 | ペンタ押さえ板<br>Pentaprism retainer plate | 1 | | 8 | ○ | | 5 |
| 1K611-105 | 432 | 測光素子押さえ板<br>Metering sensor plate | 1 | | 9 | ○ | | 5 |
| 1K611-106 | 433 | 接眼遮光板<br>Eyepiece light-tight plate | 1 | | 8 | ○ | | 5 |
| 1K611-108 | 457 | 採光プリズム押さえ板<br>Prism retainer plate | 2 | | 9 | ○ | | 10 |
| 1K611-109 | 458 | 内部ＬＣＤ圧接板<br>LCD press-contact plate | 1 | | 9 | ○ | | 5 |
| 1K611-111 | 663 | グリップ導電シール<br>Grip conductive seal | 1 | | 10 | ○ | | 5 |
| | | | | | | | | |
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部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K611-123 | 345 | アオリ防止板<br>Flap preventative plate | 1 | 1B999-159 | 6 | ○△ | | 5 |
| 1K620-153 | 422 | スクリーン枠<br>Screen frame | 1 | | 8 | ○ | | 5 |
| 1K630-531 | 956 | AFカップリングチューブ<br>AF coupling tube | 1 | | 7 | ○ | | 5 |
| 1K630-533 | 116 | リテーナ<br>Retainer | 1 | 1B999-153 | 3 | ○△ | | 5 |
| 1K630-537 | 163 | 巻き戻しフォーク<br>Rewind fork | 1 | | 2 | ○ | | 5 |
| 1K630-544 | 485 | F-Foバネローラ<br>F-Fo spring roller | 1 | | 7 | ○ | | 5 |
| 1K630-548 | 309 | 絞りローラ<br>Aperture roller | 1 | 1B999-159 | 6 | ○△ | | 5 |
| *1K640-636 | 913 | AFカップリングカラー<br>AF coupling collar | 1 | 1B999-159 | 5 | ○△ | | 5 |
| 1K670-104 | 22 | エプロン<br>Apron | 1 | | 7 | ○ | | 5 |
| *1K680-716 | 177 | パトローネ受け<br>Film cartridge base | 1 | | 1 | ○ | F-401 | 5 |
| 1K680-889 | 147 | シーケンスモーター停止SW絶縁板B<br>Insulation plate B,<br>sequence motor stop SW | 1 | 1B999-153 | 3 | ○△ | | 5 |
| 1K680-890-1 | 180 | F検知SW基板<br>Film detector base plate | 1 | | 2 | ○ | | 5 |
| 1K680-891-1<br>(1K680-891) | 186 | F検知環<br>Film detecting ring | 1 | | 3 | ○ | RP-8838 | 5 |
| 1K680-892 | 190 | DB接点カバー<br>Data back contact cover | 1 | | 1 | ○ | | 5 |
| 1K680-893 | 35 | グリップ赤ライン<br>Grip red line | 1 | | 10 | ○ | | 5 |
| 1K680-894-2 | 37 | グリップゴム<br>Grip rubber | 1 | | 10 | ○ | RP-8846<br>RP-9029 | 5 |
| 1K680-895 | 38 | 前補助カバー<br>Supplementary front cover | 1 | | 10 | ○ | | 5 |
| 1K680-896 | 39 | 裏蓋受けゴム<br>Camera back cushion rubber | 1 | | 10 | ○ | | 5 |
| 1K611-165-1 | | 板バネ(裏蓋部)<br>Plate (camera back) | 1 | 1B999-155-2 | 14 | ○△ | | 5 |
| 1K611-277 | | 板バネ(裏蓋部)<br>Plate (camera back) | 1 | 1B999-155-2 | 14 | ○△ | RP-8846 | 5 |

部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1K680-897-2 | 40 | 裏蓋ヒンジカバー<br>Camera back hinge cover | 1 | | 10 | ○ | RP-8838 | 5 |
| 1K680-898 | 41 | フィルム給送モーター基板<br>Film advance motor base plate | 1 | | 4 | ○ | | 5 |
| 1K680-902 | 533 | レリーズ接片モールド座<br>Release contact blade mold base | 1 | 1B990-330 | 12 | ○△ | | 5 |
| 1K680-904-1 | 552 | AEロックラバーSW<br>AE lock rubber SW | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K680-905-1 | 561 | 外部LCDハウジング<br>LCD housing | 1 | | 9 | ○ | | 5 |
| *1K680-906 | 567 | セルフ窓<br>Self-timer window | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 5 |
| 1K680-907<br>**1K680-907-1** | 568 | 採光窓<br>Lighting window | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | RP-9101 | 5 |
| 1K680-909 | 215 | DX接点モールド座<br>DX contact mold base | 1 | | 1 | ○ | | 5 |
| 1K680-910 | 220 | 裏蓋開閉キーモールド座<br>Camera back open/close key mold base | 1 | | 2 | ○ | | 5 |
| 1K680-913 | 281 | 圧接基板<br>Press-contact base plate | 1 | | 2 | ○ | | 5 |
| 1K680-916-1<br>**1K680-916** | 421 | プリズムボックス<br>Prism box | 1 | | 8 | ○ | RP-8838 | 5 |
| 1K680-919-1 | 454 | 表示系ブロック保持脚A<br>Display block supporter A | 1 | | 8 | ○ | | 5 |
| 1K680-920-1 | 455 | 表示系ブロック保持脚B<br>Display block supporter B | 1 | | 8 | ○ | RP-9140 | 5 |
| 1K680-929 | 369 | 手動絞りSW絶縁B<br>Insulator B, manual aperture SW | 1 | 1B990-317 | 7 | ○△ | | 5 |
| 1K681-039 | 923 | AFカウンター円板<br>AF counter disk | 1 | 1B999-159 | 5 | ○△ | | |
| 1K999-034 | 24 | 底カバー<br>Bottom cover | 1 | | 13 | ○ | | 1 |
| 1K999-065 | | ボデーバック出し用ワッシャーt=0.1 | 0~1 | | 2 | ○ | RP-9020 | 10 |
| | | | | | | | | |
| 1S125-033 | 1065 | パワートランジスタ<br>Power transistor | 1 | 1S020-035-2 | 4 | ○△ | | 5 |
| 1S125-038 | 1077 | パワートランジスタ<br>Power transistor | 1 | 1S020-035-2 | 4 | ○△ | | 5 |

部品表 Parts List

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1S135-029 | 1062 | パワートランジスタ<br>Power transistor | 1 | 1S020-035-2 | 4 | ○△ | | 5 |
| 1S135-030 | 1078 | パワートランジスタ<br>Power transistor | 2 | 1S020-035-2 | 4 | ○△ | | 5 |
| 1S172-001 | 1079 | トライアック<br>Triac | 1 | 1B990-330 | 12 | ○△ | | 5 |
| 1S190-001-3 | 1041 | CPU IC<br>(HD404418A26H) | 1 | 1S020-063 | 9 | ○△ | RP-9014 | 5 |
| 1S190-002-2 | 1042 | CPU. IC (HD637B05Z0H) | 1 | 1S020-063 | 9 | ○△ | RP-9001 | 5 |
| 1S205-046 | 1046 | IC (HD61602H) | 1 | 1S020-063 | 9 | ○△ | | 5 |
| 1S205-047 | 1049 | EEPROM (CXK1011M) | 1 | 1S020-063 | 9 | ○△ | | 5 |
| 1S223-001 | 1047 | IC (M57922) | 1 | 1S020-035-2 | 4 | ○△ | | 5 |
| 1S230-009 | 1048 | IC (IC-LVC555F-2) | 1 | 1S020-035-2 | 4 | ○△ | | 5 |
| 1S237-053 | 1043 | IC (M51063GP) | 1 | 1S020-063 | 9 | ○△ | | 5 |
| 1S237-054 | 1044 | IC (M52921FP) | 1 | 1S020-063 | 9 | ○△ | | 5 |
| 1S237-055 | 1045 | IC (M52920FP) | 1 | 1S020-063 | 9 | ○△ | | 5 |
| 1S250-014 | 1021 | フォトダイオード<br>Photo diode | 1 | | 9 | ○ | | 5 |
| 1S260-037 | 1026 | LED | 1 | 1B990-330 | 12 | ○△ | | 5 |
| 1S268-012-1 | 560 | 外部LCD<br>External LCD | 1 | | 9 | ○ | RP-9032 | 5 |
| 1S268-013-1 | 451 | 内部LCD<br>Internal LCD | 1 | | 9 | ○ | RP-9032 | 5 |
| 1S542-005 | 1031 | 圧電ブザー<br>Buzzer | 1 | 1B990-330 | 12 | ○△ | | 5 |
| 1S622-002 | 139 | ソレノイド<br>Solenoid | 1 | 1B999-153 | 3 | ○△ | | 5 |
| 1S705-108 | 1008 | AESPD FPC | 1 | | 9 | ○ | | 5 |
| 1S380-007 | 1052 | リモコン ナイベート 振動子<br>OSCILLATOR. (8MHz) | 1 | 1S020-063 | 9 | ○△ | RP-8902 | 5 |

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| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1S758-019 | 545 | 露出補正／Rラバー SW<br>Exposure compensation rubber SW | 1 | | 12 | ○ | | 5 |
| 1S758-020 | 553 | イルミラバー SW<br>Illumination rubber SW | 1 | 1B999-154-[ ]<br>1B999-160-[ ] | 12 | ○△ | | 5 |
| 1S758-021 | 582 | 巻き戻し側設定釦ラバー SW<br>Rewind-side setting button rubber SW | 1 | | 12 | ○ | | 5 |
| 1S758-022 | 492 | AFロック SWゴム<br>AF lock SW rubber | 1 | | 7 | ○ | | 5 |
| 1S811-014 | 1141 | Lead wire L=40 (green) | 1 | | | × | W-0056GN | |
| 1S811-015 | 1143 | Lead wire L=90 (yellow) | 1 | 1B999-149 | | × | W-0056YE | |
| 1S811-016 | 1144 | Lead wire L=50 (brown) | 1 | 1B999-149 | | × | W-0056BN | |
| 1S811-017 | 1145 | Lead wire L=40 (brown) | 1 | 1B999-153 | | × | W-0056BN | |
| 1S811-019 | 1147 | Lead wire L=100 (green) | 1 | 1B990-296 | | × | W-0056GN | |
| 1S811-020 | 1148 | Lead wire L=25 (black) | 1 | | | × | W-0056BK | |
| 1S811-021 | 1149 | Lead wire L=25 (brown) | 1 | | | × | W-0056BN | |
| 1S811-022 | 1150 | Lead wire L=25 (orange) | 1 | | | × | W-0056OR | |
| 1S811-023 | 1151 | Lead wire L=45 (red) | 1 | 1B990-338 | | × | W-0056RE | |
| 1S811-024 | 1152 | Lead wire L=40 (yellow) | 2 | 1B990-297 | | × | W-0056YE | |
| 1S811-025 | 1153 | Lead wire L=50 (green) | 1 | 1B990-297 | | × | W-0056GN | |
| 1S811-026 | 1154 | Lead wire L=55 (orange) | 1 | 1B990-297 | | × | W-0056OR | |
| 1S811-027 | 1155 | Lead wire L=90 (purple) | 1 | 1B999-148 | | × | W-0056PU | |
| 1S811-028 | 1156 | Lead wire L=20 (brown) | 1 | | | × | W-0056BN | |
| | | | | | | | | |
| | | | | | | | | |

部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1S811-029 | 1157 | Lead wire L=20 (orange) | 1 | 1B990-296 | | × | W-0056OR | |
| 1S811-030 | 1158 | Lead wire L=20 (white) | 1 | | | × | W-0056WH | |
| 1S811-031 | 1159 | Lead wire L=90 (purple) | 1 | | | × | W-0056PU | |
| 1S811-032 | 1160 | Lead wire L=170 (orange) | 1 | 1B990-299 | | × | W-0056OR | |
| 1S811-035 | 1171 | Lead wire L=25 (red) | 1 | | | × | W-0080RE | |
| 1S811-036 | 1172 | Lead wire L=70 (black) | 1 | 1B990-312 | | × | W-0080BK | |
| 1S811-037 | 1173 | Lead wire L=95 (black) | 1 | | | × | W-0080BK | |
| 1S811-038 | 1174 | Lead wire L=100 (gray) | 1 | | | × | W-0080GY | |
| 1S811-039 | 1175 | Lead wire L=85 (purple) | 1 | | | × | W-0080PU | |
| 1S811-040 | 1176 | Lead wire L=50 (black) | 1 | | | × | W-0080BL | |
| 1S811-041 | 1177 | Lead wire L=30 (orange) | 1 | | | × | W-0080OR | |
| 1S811-042 | 1178 | Lead wire L=160 (purple) | 1 | | | × | W-0080PU | |
| 1S811-044 | 1181 | Lead wire L=40 (black) | 1 | | | × | W-0080BK | |
| RN00103JIH | 1118 | チップ抵抗 1/10W 10KΩ Resister | 1 | 1S020-063 | 9 | ○△ | RP-8838 | |
| RN00104JIH | 1126 | R1 抵抗 1/10W 100KΩ R1 Resister | 1 | 1S020-063 | 9 | ○△ | RP-9006 | |
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部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| A1-14018FA | 701 | ソレノイド止めビス<br>Solenoid screw | 1 | 1B999-153<br>1B999-159 | 3, 6 | ○△ | | 50 |
| A1-17016FB | 714 | 底カバー止めビス<br>Bottom cover screw | 2 | 1B999-159 | 6 | ○△ | | 50 |
| A1-17018FB | 711 | シーケンスモーター停止SW止めビス<br>Screw, sequence motor stop SW | 1 | 1B999-153 | 3 | ○△ | | 50 |
| A1-17018FS | 702 | 底カバー止めビス<br>Bottom cover screw | 4 | | 13 | ○ | | 50 |
| A1-17022FB | 703 | 赤ライン止めビス<br>Red line screw | 2 | | 10 | ○ | | 50 |
| A1-17028FA | 706 | シュー止めビス<br>Shoe screw | 4 | 1B999-160<br>1B999-154<br>1B999-159 | 11 | ○△ | RP-8846 | 50 |
| A1-17028FS | 705 | エプロン止めビス<br>Apron screw | 3 | 1B999-159 | 7 | ○△ | | 50 |
| | | | | | | | | |
| A1-17050FS | 709 | エプロン上カバー止めビス<br>Screw, apron/top cover | 2 | | 10 | ○ | | 50 |
| A1-20050FS | 712 | シャッター止めビスA<br>Shutter screw A | 1 | | 1 | ○ | | 50 |
| A2-17028FA | 726 | 電子ダイヤル接片座止めビス<br>Screw, electrical dial blade base | 3 | 1B990-330 | 5, 12 | ○△ | | 50 |
| A2-17060FA | 727 | 電池室SW接片止めビス<br>Screw, switch contact | 1 | 1B240-068 | 4 | ○△ | | 50 |
| B1-14018FA | 715 | インダクタ保持板止めビス<br>Screw, inductor support plate | 1 | | 9 | ○ | RP-9014 | 50 |
| B1-14018FB | 716 | AFモーター止めビス<br>AF motor screw | 2 | 1B999-159 | 5 | ○△ | | 50 |
| B1-14030FD | 717 | AF接点止めビス<br>AF contact screw | 2 | 1B999-159 | 6 | ○△ | | 50 |
| B1-17016FB | 719 | IL基板止めビス<br>Screw, base plate I, L | 4 | 1B999-159 | 6 | ○△ | | 50 |
| B1-17030FA | 720 | I基板L基板止めビス<br>Screw, base plate I, L | 5 | 1B999-159 | 6, 7 | ○△ | | 50 |
| B1-17040FA | 722 | プリズムボックス止めビス<br>Prism box screw | 4 | | 8 | ○ | | 50 |
| B1-17045FB | 723 | 表示ブロック保持脚止めビス<br>Screw, display block supporter | 2 | | 8 | ○ | RP-9101 | 50 |
| B1-14025FA | | インダクタ保持板止めビス | 2 | | 4 | ○ | RP-9014 | 50 |

部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| B1-17070FB | 724 | サブボディ止めビスA<br>Sub-body screw A | 2 | | 10 | ○ | | 50 |
| B2-14018FA | 728 | 圧接基板止めビス<br>Screw, press-contact base plate | 3 | | 2 | ○ | | 50 |
| G1-14035FA | 731 | AEロック基板止めビス<br>Screw, AE lock base plate | 1 | | 12 | ○ | | 50 |
| G1-17025FA | 733 | パトローネ規制バネ止めビス<br>Screw, film cartridge stopper spring | 4 | 1B999-155-2 | 1, 8<br>14 | ○△ | | 50 |
| G1-17025FS | 734 | DB接点カバー止めビス<br>Screw, data back contact cover | 4 | | 1 | ○ | | 50 |
| G1-17028FS | 736 | 電池ホルダー蓋止めビス<br>Screw, battery holder cover | 3 | 1B999-152 | 13 | ○△ | | 50 |
| G1-17035FA | 737 | 裏蓋爪止めビス<br>Screw, camera back latch | 2 | 1B999-155-2 | 14 | ○△ | | 50 |
| G1-17035FB | 738 | シャッター止めビスB<br>Shutter screw B | 2 | | 1 | ○ | | 50 |
| G1-17035FS | 739 | 上カバー止めビスA<br>Top cover screw A | 1 | | 10 | ○ | RP-8838 | 50 |
| G1-17040FA | 740 | グリップ止めビス<br>Grip screw | 2 | | 10 | ○ | | 50 |
| G1-17040FB | 741 | 基準SW止めビス<br>Reference SW screw | 1 | | 1, 4 | ○ | | 50 |
| G1-17040FS | 742 | 底カバー止めビス<br>Bottom cover screw | 4 | | 13 | ○ | RP-8838 | 50 |
| G1-17055FS | 743 | 上カバー止めビスB<br>Top cover screw B | 3 | | 10 | ○ | | 50 |
| G1-20050FB | 745 | サブボディ止めビスA<br>Sub-body screw A | 3 | | 10 | ○ | | 50 |
| G1-20060FB | 746 | 吊り環B止めビス<br>Eyelet B screw | 2 | | 1 | ○ | | 50 |
| G2-17030FA | 761 | 上地板止めビス<br>Screw, film advance lever unit | 4 | | 2, 3 | ○ | | 50 |
| G2-17030FB | 762 | 実装カバー板止めビス<br>Cover plate screw | 2 | | 10 | ○ | | 50 |
| G2-17035FB | 765 | 底基板Fモーター基板止めビス<br>Screw, bottom base plate/film advance motor base plate | 2 | | 4 | ○ | | 50 |
| G1-14020FA | 732 | Screw | 1 | | 4 | ○ | | 50 |
| G1-17050FS | | SCREW | 0-1 | | | ○ | RP-8925 | 10 |

部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| G2-17045FA | 763 | 上カバー基板止めビス<br>Screw, top cover plate | 6 | | 12 | ○ | | 50 |
| H1-14025FB | 748 | 測光素子押さえ板止めビス<br>Screw, light sensor retainer plate | 2 | | 9 | ○ | | 50 |
| H1-17035FB | 750 | フィルム給送フォトインタラプタ止めビス<br>Screw, photo interrupter | 1 | | 4 | ○ | | 50 |
| H1-17040FB | 751 | 裏蓋開閉キーモールド座止めビス<br>mold base<br>Screw, camera back open/close key | 2 | | 2 | ○ | | 50 |
| H1-17045FB | 752 | モーター基板止めビス<br>Screw, motor base plate | 4 | | 1, 4<br>9 | ○ | RP-8838 | 50 |
| H1-14050FB | 749 | 表示ブロックビス<br>Screw, display block | 2 | | 9 | ○ | | 50 |
| H1-17050FB | 753 | シーケンスギア基板止めビス<br>Screw, advance mechanism unit | 3 | | 3 | ○ | | 50 |
| H3-20055FA | 766 | 耳環A止めビス<br>Eyelet A screw | 2 | | 1 | ○ | | 50 |
| S1-00700SY | 821 | AFカップリングEリング<br>E ring, AF coupling | 1 | 1B999-159 | 5 | ○△ | | 50 |
| S1-01200SX | 822 | モーター軸Eリング<br>E ring, motor shaft | 2 | 1B999-159<br>1B990-317 | 7, 6 | ○△ | RP-8913 | 50 |
| S1-01500SX | 823 | 操作釦Eリング<br>E ring, operational button | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | for USA | 50 |
| T1-01000SX | 831 | リテーナーボール<br>Retainer ball | 14 | 1B999-153 | 3 | ○△ | | 50 |
| T2-01500SX | 832 | 電子ダイヤルクリックボール<br>Electrical dial click ball | 1 | 1B999-154-1<br>1B999-160-1 | 11 | ○△ | | 50 |
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部品表 Parts List

FAA22051-R. 3241. B

| 部品番号 Part No | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 部組品番号 Assembly | 参照図番 Fig. | 販売区分 Term of Delivery | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|---|
| 1G308-015 | G11 | 測光レンズ<br>Metering lens | 1 | | 8 | ○ | | 5 |
| *1G550-020 | G2 | サブミラー<br>Sub-mirror | 1 | 1B990-342 | 6 | ○△ | F-401 | 5 |
| 1G571-002 | G1 | メインミラー<br>Main mirror | 1 | 1B990-342 | 6 | ○△ | F-401 | 5 |
| 1G950-052 | G3 | フレネル<br>Screen | 1 | | 8 | ○ | | 5 |
| 1G551-014-1 | G9 | G9 ミラー<br>G9 mirror | 1 | 1B990-324-1 | 9 | ○△ | RP-9020 | 5 |
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# 部組品表 Assembly List

FAA22051-R. 3241. B

| 部組品番号 Assembly No. | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 大部組品番号 Main assembly No. | 参照図番 Fig. | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|
| 1B001-755-1 | B603 | 圧板 Pressure plate | 1 | | 14 | | 5 |
| 1B001-782 | B111 | シーケンスギア Sequence gear | 1 | 1B999-153 | 3 | | 5 |
| 1B001-784 | B301 | I 基板 Base plate I | 1 | 1B999-159 | 6 | | 1 |
| 1B001-785 | B466 | リモートコネクタ Remote connector | 1 | 1B999-159 | 5 | | 5 |
| 1B001-786 | B930 | AF横レバー基板 AF transverse lever plate | 1 | 1B999-159 | 5 | | 5 |
| 1B001-787 | B940 | AFモードSW Focus mode SW | 1 | 1B999-159 | 5 | | 5 |
| 1B060-369 | B903 | AFモーター AF motor | 1 | 1B999-159 | 5 | | 5 |
| | | | | | | | |
| | | | | | | | |
| 1B060-372 | B380 | 絞りMg基板 Aerture Mg base plate unit | 1 | 1B999-159 | 6 | | 5 |
| 1B240-064 | B522 | 電子ダイヤル接片座 Electrical dial contact unit | 1 | 1B990-330 | 12 | | 5 |
| 1B240-065 | B537 | レリーズSW接片 Release SW contact unit | 1 | 1B990-330 | 12 | | 5 |
| 1B240-066 | B542 | 電源SW Power SW unit | 1 | 1B999-154 -1<br>1B999-160 -1 | 11 | | 5 |
| | | | | | | | |
| 1B240-068 | B95 | 電池室スイッチ接片組 Switch contact, battery house | 1 | | 4 | | 5 |
| 1B314-160 | B321 | シャッターレリーズレバー Shutter release lever | 1 | 1B999-159 | 6 | | 5 |
| | | | | | | | |
| *1B610-035-2 | B474 | AF接点 AF contact unit | 1 | 1B999-159 | 6 | RP-8838 | |
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# 部組品表 Assembly List

EAA22051-R. 3241. B

| 部組品番号 Assembly No. | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 大部組品番号 Main assembly No. | 参照図番 Fig. | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|
| 1B610-070 | B400 | L基板<br>Base plate L | 1 | 1B999-159 | 6 | | 5 |
| | | | | | | | |
| ※1B680-051-2<br>1B990-491 | B572 | シュー座<br>Shoe base unit | 1 | 1B999-154-1<br>1B999-160-1 | 11 | RP-9101 | 5 |
| ~~1B990-293~~<br>1B060-370-1 | B32 | フィルム給送モーター<br>Film advance motor unit | 1 | | 4 | RP-8913<br>RP-9202 | 5 |
| 1B990-294 | B33 | シーケンス制御モーター<br>Sequence control motor unit | 1 | | 3 | | 5 |
| 1B990-296 | B60 | 基準SW<br>Reference SW | 1 | | 4 | | 5 |
| 1B990-297 | B66 | フィルム給送フォトインタラプタ<br>Film advance photo interrupter | 1 | | 4 | | 5 |
| 1B990-299 | B92 | 裏蓋SW<br>Camera back SW | 1 | | 4 | | 5 |
| 1B990-308 | B252 | 電池ホルダー蓋<br>Battery holder cover unit | 1 | | 13 | | 5 |
| 1B990-311 | B258 | 電池端子板C<br>Battery terminal plate C | 1 | | 13 | | 5 |
| 1B990-312 | B262 | 電池接点A<br>Battery contact A | 1 | | 1 | | 5 |
| 1B990-313 | B263 | 電池接点B<br>Battery contact B | 1 | | 1 | | 5 |
| 1B990-314 | B331 | 絞り増速ギア<br>Aperture accelerating gear | 1 | 1B999-159 | 6 | | 5 |
| 1B990-315 | B335 | 絞りラチエット<br>Aperture latchet | 1 | 1B999-159 | 6 | | 5 |
| 1B990-316 | B342 | 絞り制御フォトインタラプタ<br>Aperture control photo interrupter retainer | 1 | 1B999-159 | 6 | | 5 |
| 1B990-317 | B350 | 手動絞り基板<br>Manual aperture base plate | 1 | 1B999-159 | 7 | | 5 |
| 1B990-318 | B366 | 手動絞りSW B<br>Manual aperture SW B | 1 | 1B990-317 | 7 | | 5 |
| 1B990-322 | B420 | ミラーボックス底板<br>Mirror box bottom plate | 1 | | 8 | | 5 |
| 1B999-197 | | シャッター幕組<br>Shutter curtain unit | 1 | 1B999-148 | 1 | RP-8832・RP-8846 | 50 |
| ~~1B999-148~~ | | シャッター後幕組<br>Shutter closing curtain | 1 | 1B999-148 | | RP-8832-RP-8846 | 50 |
| 1B999-374 | | ウインドウタイマー回路 | 1 | | 9 | | 10 |

部組品表 Assembly List

FAA22051-R. 3241. B

| 部組品番号 Assembly No. | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 大部組品番号 Main assembly No. | 参照図番 Fig. | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|
| ~~1B990-324~~ 1B990-324-1 | B452 | 表示系ブロック Display block | 1 | | 9 | RP-9020 | 5 |
| 1B990-325 | B453 | 採光プリズム Lighting prism | 1 | | 9 | | 5 |
| 1B990-327 | B481 | F－Fo抵抗基板 F-Fo resistance base plate | 1 | 1B999-159 | 7 | | 5 |
| 1B990-328 | B482 | F－Fo連動環 F-Fo coupling ring | 1 | | 7 | | 5 |
| 1B990-329 | B503 | AF・M切り替えSW Focus mode SW unit | 1 | 1B999-159 | 6 | | 5 |
| 1B990-330 | B2007 | 上カバー部FPC FPC unit for top cover | 1 | | 12 | | 1 |
| 1B990-331 | B514 | 電子ダイヤルパターン基板 plate Electrical dial pattern | 1 | 1B999-154-1 1B999-160-1 | 11 | | 5 |
| 1B990-334 | B612 | ロッド軸基板 Rod shaft plate | 1 | | 14 | | 5 |
| 1B990-337 | B906 | フリクションギア Friction grar | 1 | 1B999-159 | 5 | | 5 |
| 1B990-338 | B924 | AF フォトインタラプタ AF photo interrupter | 1 | 1B999-159 | 5 | | 5 |
| ~~1B990-342~~ 1B990-265 | B2391 | 主ミラーチリトリ Main mirror holder | 1 | 1B999-159 | 6 | RP-8902 | 5 |
| 1B990-343 | B2401 | AP2組品 AP2 unit | 1 | | 9 | | 5 |
| 1B999-148 (~~1B999-148-2~~) | B3001 | シャッター組品 Shutter unit | 1 | | 1 | | 1 |
| 1B999-149 | B3002 | F検知スイッチA Film detection switch A | 1 | | 2 | | 5 |
| 1B999-150 | B3003 | F検知スイッチB Film detection switch B | 1 | | 2 | | 5 |
| 1B999-151 | B3004 | シーケンスギア基板下地板 Film advance mechanism unit | 1 | | 3 | | 5 |
| 1B999-152 ~~1B999-152-3~~ | B3005 | 電池ホルダーハウス Battery holder house | 1 | | 13 | | 5 |
| 1B999-153 | B3006 | シーケンス基板上地板 Film advance lever unit | 1 | | 3 | | 1 |
| 1B999-342 | B3018 | I基板組品 **UNIT BASE PLATE** | 1 | | 6 | RP-9006 | 1 |
| 1B999-436 | | ガイドローラー **GUIDE ROLLER** | 1 | 1B999-154-2 | 2 | RP-9116 | 5 |

部組品表 Assembly List

FAA22051-R. 3241. B

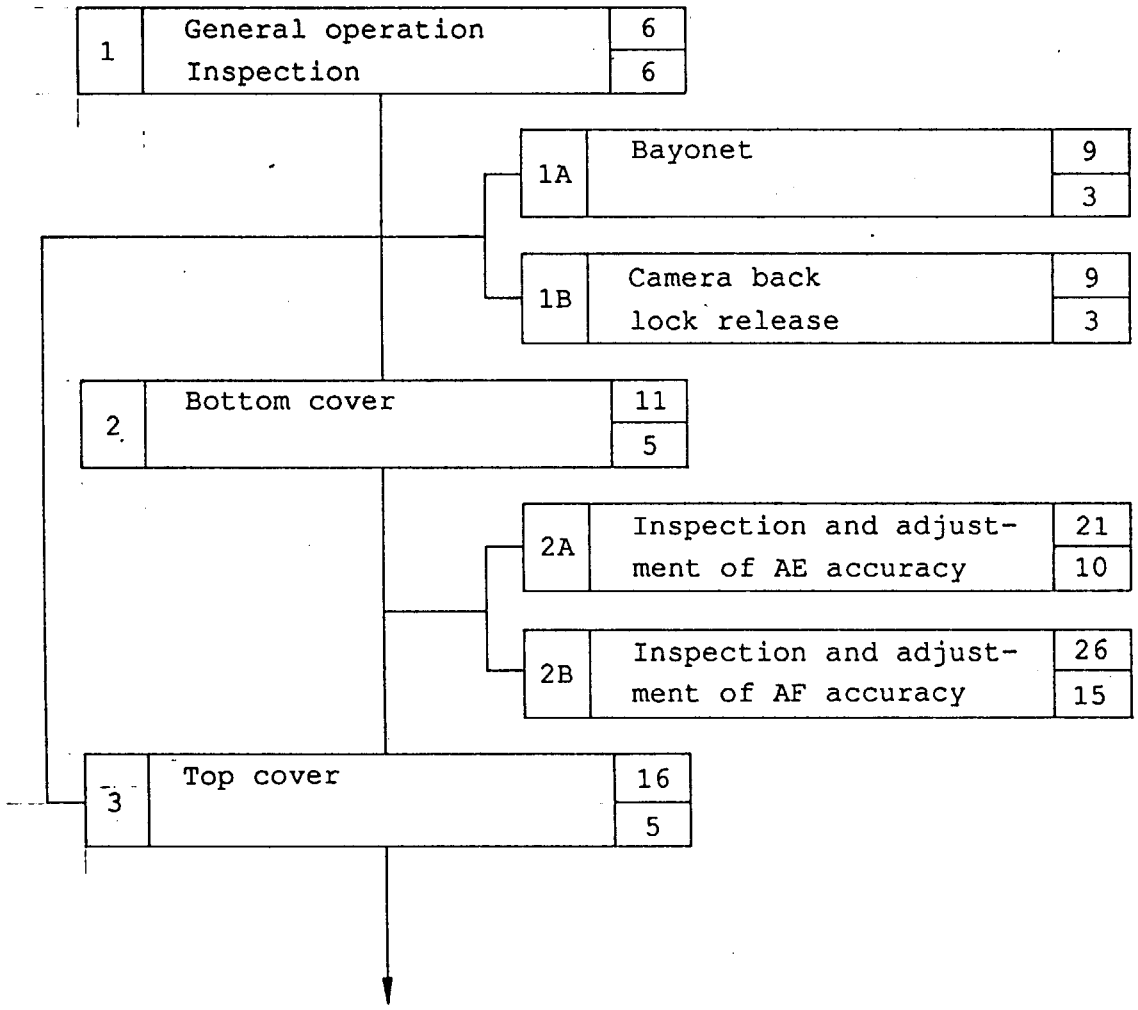
| 部組品番号 Assembly No. | 補助番号 Ckt. No. | 名称 Name | 1台分個数 Pcs. Per Unit | 大部組品番号 Main assembly No. | 参照図番 Fig. | 備考 Remarks | 要求単位 Q'ty per order |
|---|---|---|---|---|---|---|---|
| ~~1B999-154~~ 1B999-154-1 | B3007 | 上カバー Top cover | 1 | | 11 | RP-9001 | 1 |
| ~~1B999-155-1~~ 1B999-155-2 | B3008 | 裏蓋 Camera back | 1 | | 14 | RP-9029 | 1 |
| 1B999-157 | B3009 | AF基板 AF base plate | 1 | | 5 | | 5 |
| 1B999-158 | B3010 | DX接点基板 DX contact plate | 1 | | 1 | | 5 |
| 1B999-159 | B3011 | 前板 Front plate | 1 | | 5, 6 7 | | 1 |
| (FAA22151) ~~1B999-160~~ 1B999-160-1 | B3012 | 上カバー Top cover | 1 | 1B999-1604 (FPC組つき) | 11 | RP-9101 For N8008 | 1 |
| 1B999-163 | B3013 | 巻き戻し基板 Rewind base plate | 1 | | 2 | | 5 |
| ~~1B999-164~~ 1B999-164-2 | B3014 | フィルムガイドローラー Film guide roller | 1 | | 2 | RP-9116 | 5 |
| 1B999-165 | B3015 | AF駆動ギア基板部 AF driving gear plate | 1 | | 5 | | 5 |
| ~~1B999-166~~ **1B990-298** | B3016 | 底板ギア組 Bottom base plate | 1 | | 4 | RP-8838 | 5 |
| 1S017-023 | B1006 | DB・DX FPC Data back DX FPC unit | 1 | | 1 | | 5 |
| ~~1S020-033-2~~ 1S020-063 | B1001 | メインFPC Main FPC unit | 1 | | 9 | RP-8838 RP-8902 RP-9001 RP-9014 | 1 |
| 1S020-035-2 | B1005 | 電源FPC Power SW FPC unit | 1 | | 4 | | 1 |
| 1S020-037-1 | B1003 | AF接点FPC AF contact FPC unit | 1 | 1B999-159 | 6 | | 5 |
| 1S020-038 | B1004 | AF基板FPC AF base plate FPC unit | 1 | 1B999-159 | 5 | | 5 |
| ~~1S020-045~~ 1S999-034 | | 3V用 LCD駆動基板 LCD(3V) Actuating FPC | 1 | | 9 | RP-8838 RP-9014 | 5 |
| 1G013-032 | G5,6 | 接眼レンズ Eyepiece lens | 1 | | 8 | | 5 |
| 1G080-022 | G4,10 | ペンタプリズム部 Pentaprism unit | 1 | | 8 | | 1 |
| **1B999-674** | | **SHUTTER CURTAIN UNIT** | | | | | |
| | | | | | | | |

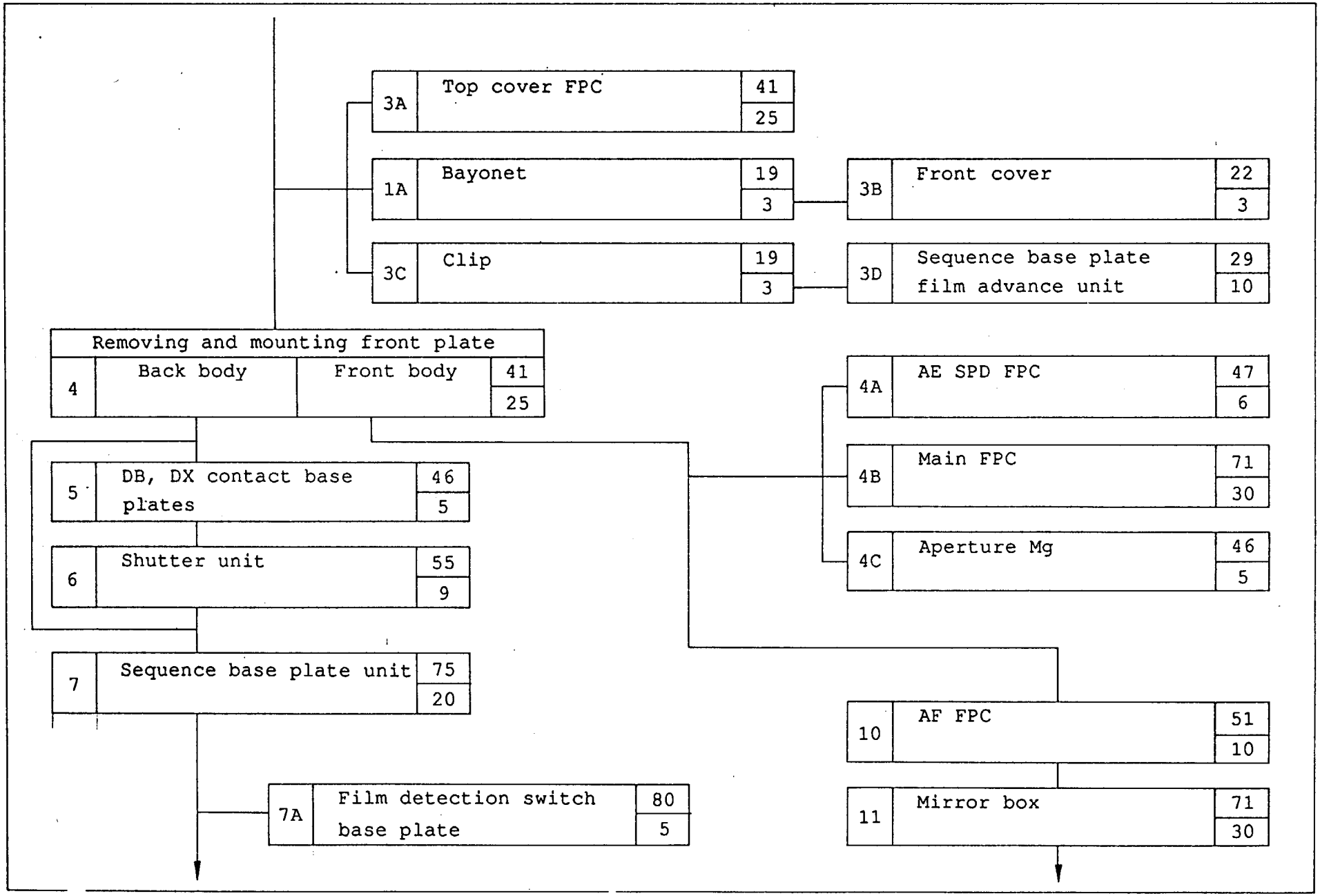
# Nikon

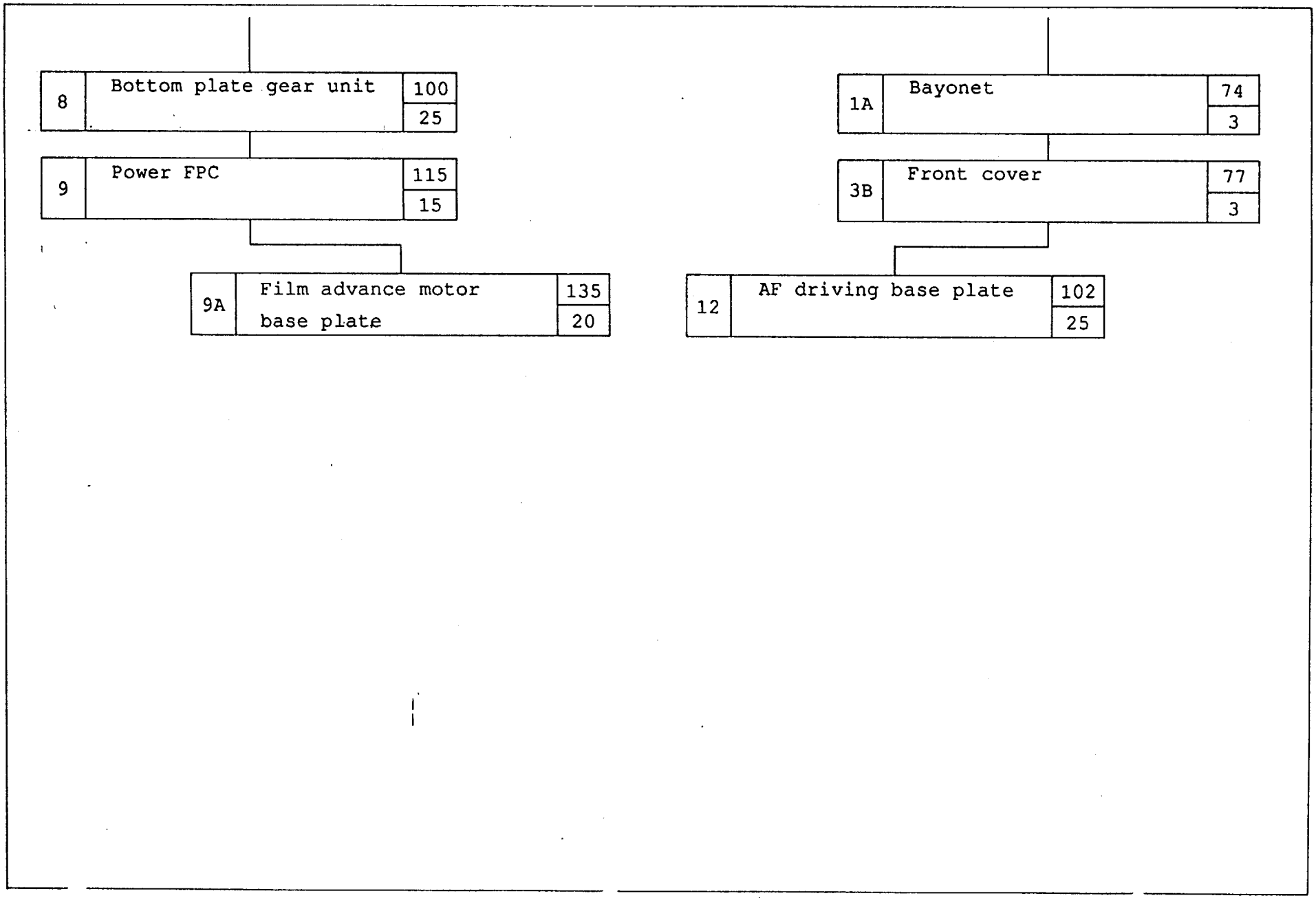
# Nikon F-801AF / N8008

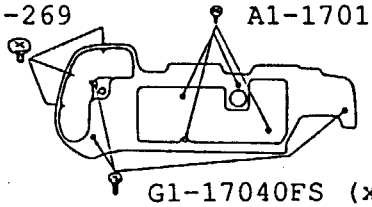
(1) Standard working hour
(2) Disassembling and assembling procedures
(3) Historical records of improvement

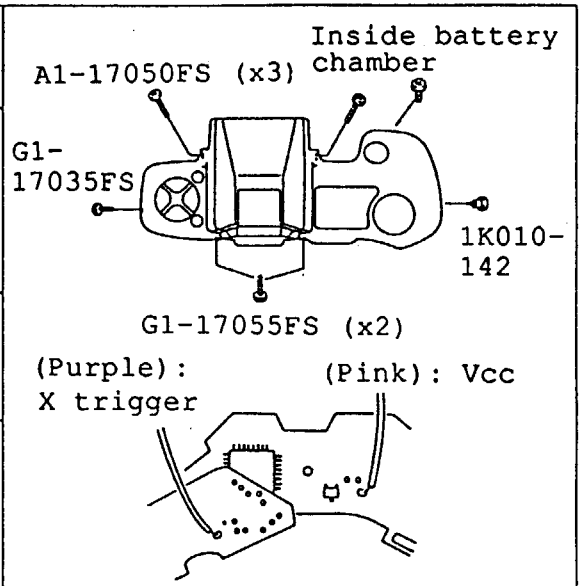
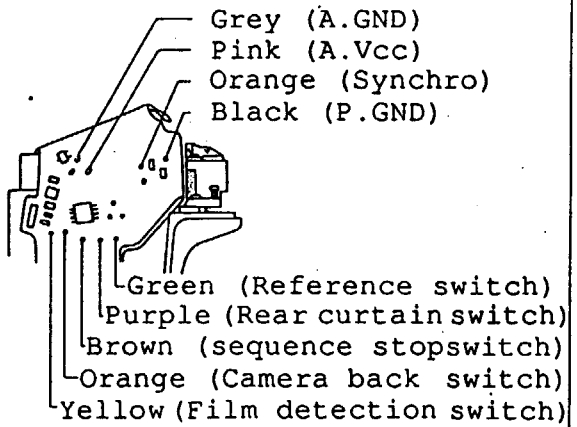
F-801 Standard Working Hour (Unit: minutes)

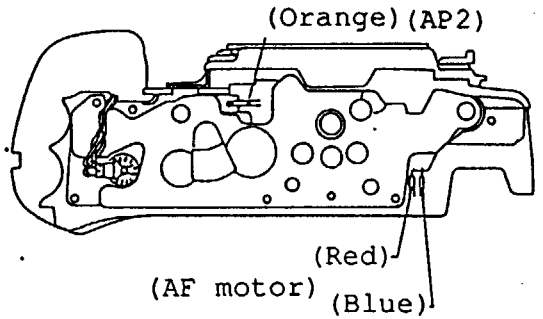
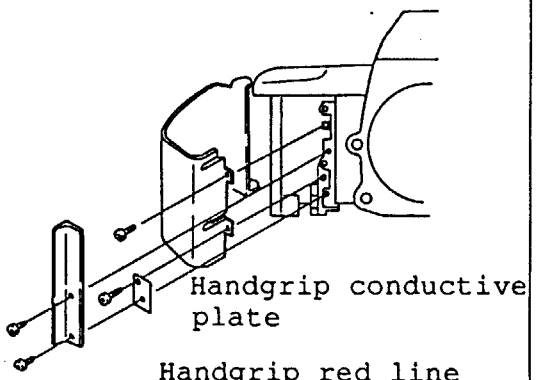
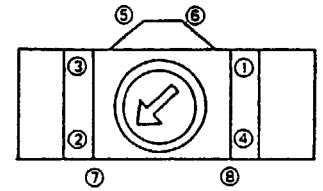


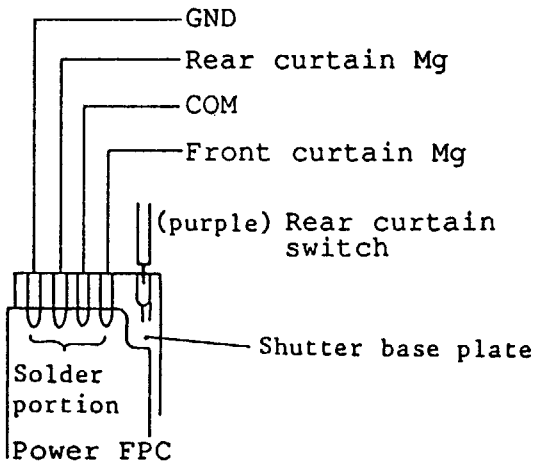

3A
Top cover FPC
41
25
1A
Bayonet
19
3
3B
Front cover
22
3
3C
Clip
19
3
3D
Sequence base plate
film advance unit
29
10
Removing and mounting front plate
4
Back body
Front body
41
25
4A
AE SPD FPC
47
6
4B
Main FPC
71
30
4C
Aperture Mg
46
5
5
DB, DX contact base
plates
46
5
6
Shutter unit
55
9
7
Sequence base plate unit
75
20
10
AF FPC
51
10
11
Mirror box
71
30
7A
Film detection switch
base plate
80
5


8
Bottom plate gear unit
100
25
9
Power FPC
115
15
9A
Film advance motor base plate
135
20
1A
Bayonet
74
3
3B
Front cover
77
3
12
AF driving base plate
102
25

| NO. | ITEM | DISASSEMBLING | ASSEMBLING | PROCEDURES |
|---|---|---|---|---|
| 1 | General operation inspection | (a) Camera back (Turn camera back switch ON using a tool.) | ← | |
| | | (b) Inspection of mount dimensions (Check to see if there is any deformation in the body.) | | |
| | | (c) Inspection of AE and AF operations. | | |
| | | | | Bayonet → 1A<br>Camera back lock release → 1B<br>Top cover → 3 |
| 2 | Bottom cover | (a) Handgrip rubber<br>(b) Screws (x10): three types. | ←<br>← | 1K120-269 (x3)<br>A1-17018FS (x4)<br>  <br>G1-17040FS (x3) |
| | | | | AE accuracy inspection, adjustment → 2A<br>AF accuracy inspection, adjustment → 2B |

| | | | | |
|---|---|---|---|---|
| 3 | Top cover | (a) Remove camera strap eyelet. | Attach camera strap eyelet. |  |
| | | (b) Screws (x4): four types. (Lift top cover from handgrip side to film cartridge chamber side.) | ← (Lift top cover from film cartridge chamber to handgrip side) | |
| | | (c) Wires (x2): (Pink), (purple). | ← (Distribute wires under FPC.) | |
| | | (d) Press contact: screws (x2). Press contact holding plate. Press contact rubber. | ← | |
| | | | | Top cover FPC → 3A<br>Front cover → 3B<br>Handgrip → 3C<br>Sequence base plate film advance unit → 3D |
| 4 | Removing and mounting of front plate. | (a) Wires (x9): (grey), (pink), (black), (orange), (green), (purple), (brown), (orange), (yellow). | ← (Arrange wires with acetate tape) |  |
| | | (b) Wires (x3): (red), (blue), (orange). | ← | |

| | | | | |
|---|---|---|---|---|
| 4 | Removing and mounting of front plate. | (c) Press contact: screws (x2). Press contact holding plate. Press contact rubber. | ← |  |
| | | (d) LCD fixing screws (x2) and wire holder. Main FPC holding screw (x1) (Peel light shielding sponge of viewfinder eyepiece about half from inside.) | ← | |
| | | (e) Red line handgrip: screws (x2). | ← |  |
| | | (f) Handgrip conductive plate: screw (x1). | ← | |
| | | (g) AF mode selector switch knob: screw (x1) and seal (x2). | ← | |
| | | (h) Front plate fixing screws (x8): four types. | ←<br>•Set mirror driving lever to aperture side (sequence starting position), then attach it to the front plate. (Care should be taken not to pinch wires.)<br>•Move the front plate aside toward lower left, and attach screws in the order of (1) to (8). |  |
| | | | | AE SPD FPC → 4A<br>Main FPC → 4B<br>Aperture Mg → 4C<br>Sequence base plate unit → 7 |

| | | | | |
|---|---|---|---|---|
| 5 | DB, DX contact base plates | (a) Press contact base plate: screws (x3)<br>(b) DB contact cover: screws (x3).<br>DX contact base plate: screws (x2). | ← | |
| 6 | Shutter unit | (a) Wire (x1) (purple). Remove soldering: Four locations. | ← |  <br>*Remove orange wire on main FPC side. |
| | | (b) Shutter unit fixing screws (x3): Two types.(Pull out shutter and orange wire as well.) | ←<br>•In the factory, grip and cover-plate are removed first, then wires are sorted. But in the repair service office, take following procedures to save time. When you remove the old shutter, cut the orange wire off and leave it under the plate. Install new shutter and solder the orange wires, then pull out the old orange wire. After that you can place the new shutter wire easily. | |

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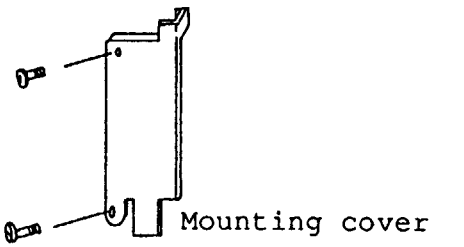
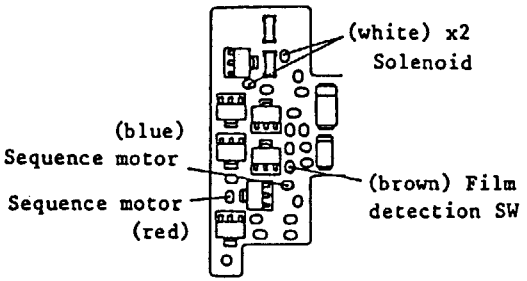
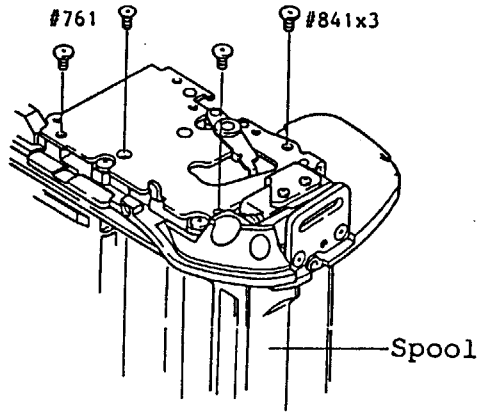
|---|---|---|---|---|
| 7 | Sequence base plate unit | (a) Camera back hinge cover screws (x3) | ← |  |
| | | (b) Handgrip: screw (x1) | ← | |
| | | (c) Mounting cover: screws (x2) | ← | |
| | | (d) Wires (x5): (White [x2]), (brown), (blue), and (red) | ← | |
| | | (e) Attaching screws (x4): two types.<br>•Remove sequence base plate unit by holding it up. Film detection ring, sprocket and motor rotation reducing gear II are also removed at the same time. | ←<br>•Set the unit on the body by joining the concave of the lower part of the sprocket together with the convex of the sprocket gear shaft.<br>•Attach film detection ring.<br>•Raise the film guide rollers forward and insert spool in the body. (Take care to handle sequence motor wires.)<br>•Check following inspections after assembling:<br>1. Rotation of spool<br>2. Rotation of sprocket<br>3. OFF position of film detection switch. (Connect [brown] and [yellow] wires to the tester, and the switch turns OFF at the position which is 0.5mm or more from the top end of the sprocket. |  <br>  |

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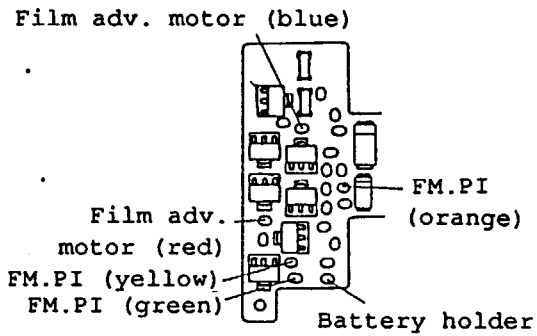
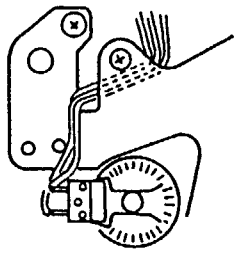
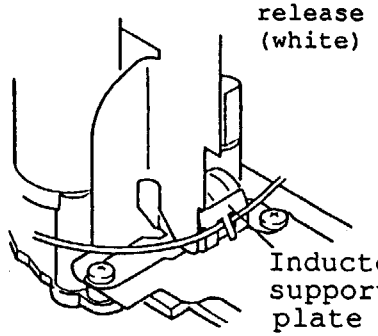
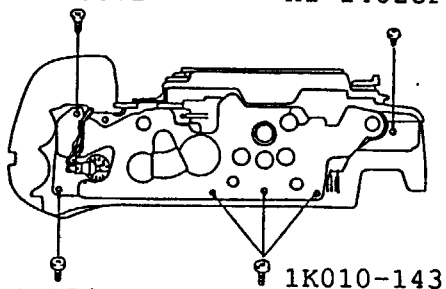
|---|---|---|---|---|
| | | | | Film detection switch base plate → 7A |
| 8 | Bottom plate gear unit | (a) Wires (x6): (Red), (Black), (White), (Yellow), (Green),and (Orange) | ← |  |
| | | (b) Inductor supporting plate: screws (x2)<br>Peel double coated adhesive tapes between power FPC and bottom plate gear unit. | ← | |
| | | (c) Bottom plate gear unit (screws x7): Four types. (Pay attention to camera back switch and washers when removing.)<br>Washer: 1K165-095 | •Mount while holding down the camera back switch. (Do not forget to use washers.)<br>•Distribute FM.PI wires on the right side of screw.<br>  <br>← |  <br>G2-17035FB H1-14025FB<br>  <br>H1-17045FB (Inside) |
| | | | | |

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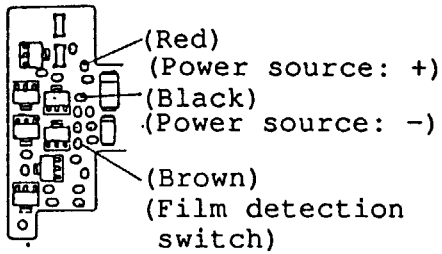
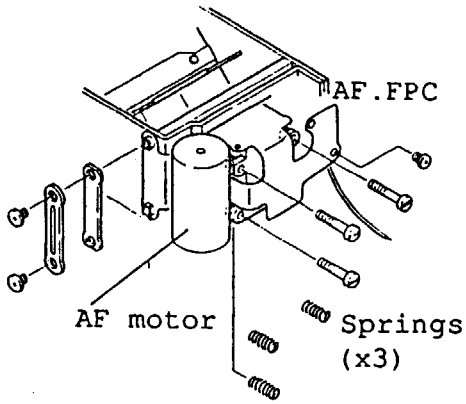
|---|---|---|---|---|
| 9 | Power FPC | (a) Camera back lock release (Screws x2) | ← |  |
| | | (b) Wires (x3): (Red), (Black) and (Brown). (Peel double coated adhesive tape from power FPC) | ← | |
| | | | | Film advance motor base plate unit. → 9A |
| 10 | AF FPC | (a) Press contact: screws x2. Press contact holding plate. Press contact rubber. | ← |  |
| | | (b) Mounting screws (x4): Two types and springs (x3) (Remember how many turns you have unscrewed when removing screws and fasten the screws the same number of turns when mounting.) | •Pass FPC press contact through AF motor and mirror box.<br>•Number of turns of screws when fastening temporarily. Approx.: 10±1 turns.<br>← | |

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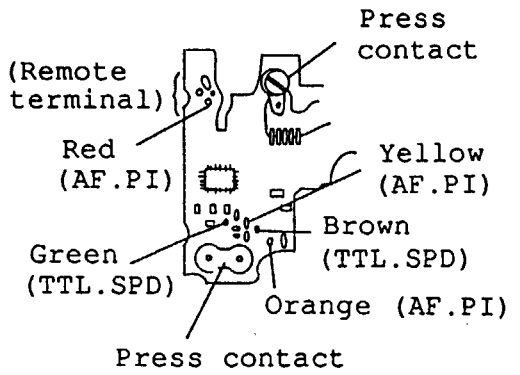
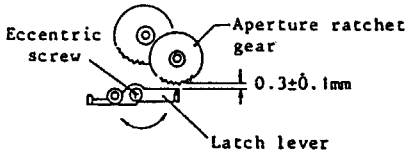
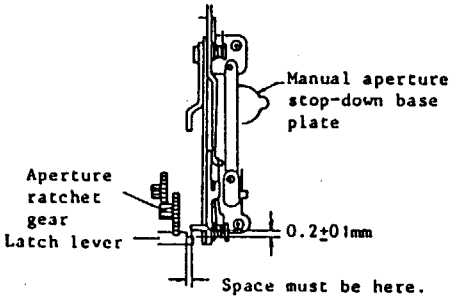
| 11 | Mirror box | (a) Wires (x5): (Green), (Yellow), (Brown), (Orange), (Red) | ← |  |
| | | (b) Soldering of remote terminal pins | ← | |
| | | (c) Two press contact portions: Screws (x3) | ← | |
| | | (d) FPC attaching screw (x1) (Hold up main FPC) | ← | |
| | | (e) Soldering of manual stop down base plate. Manual stop down base plate screws (x2). (Remove by moving the 3.1 lever down.) | ← (Adjustment and inspection)<br>1. Aperture Mg latch lever. Adjusting gap of manual stop down base plates.<br>•Released state of aperture latchet gear.<br>  <br>•Latched state of aperture latchet gear.<br>  | |

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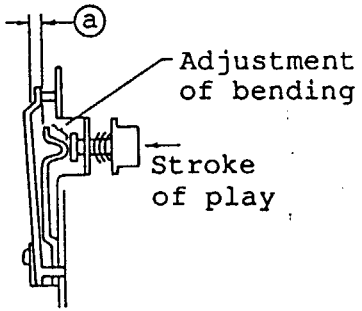
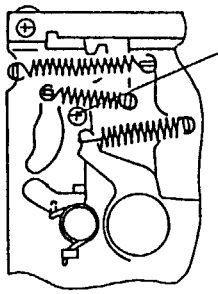
|---|---|---|---|---|
| 〃<br>11 | Mirror box | | 2. Adjustment of ON/OFF positions of manual stop down switch.<br>•Switch should not turn ON when pressing manual stop down button by the stroke of the play with no lens mounted. Gap of switch at position "a" is between 0.2 and 0.8mm.<br>•Switch should turn ON when pressing manual stop down button by the stroke of the play with lens (50mm f/1.8) mounted.<br>(Note: Height of aperture lever (±3.4+0.01, −0) must have been adjusted.)<br>  | Adjustment of height of aperture lever.<br>(Standard: 3.4+0.01, −0mm)<br>  <br>(J18004 used) |

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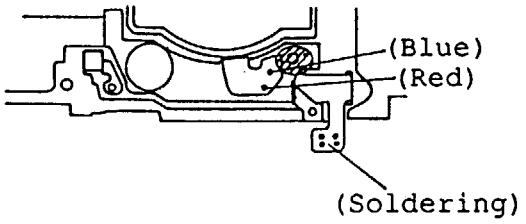
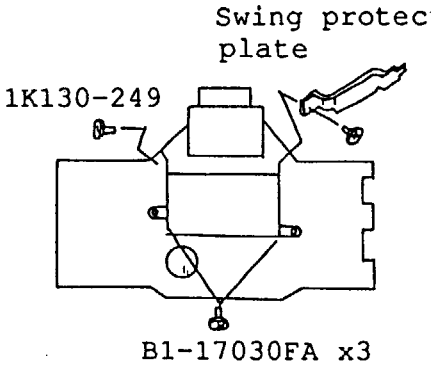
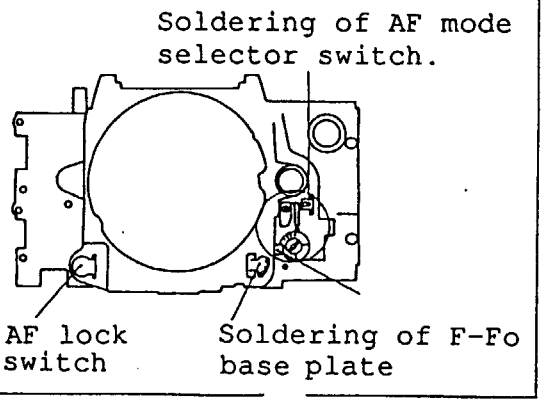
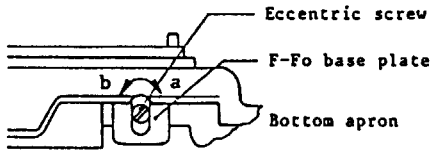
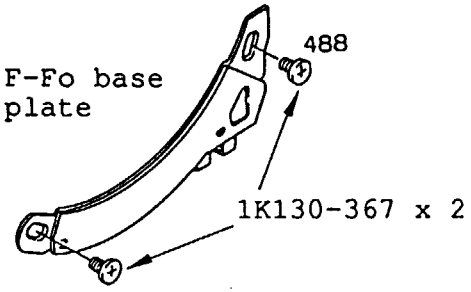
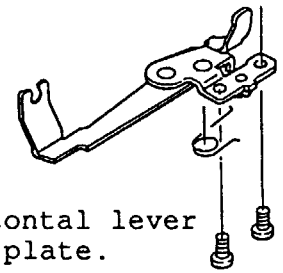
|---|---|---|---|---|
| 11 | Mirror box | (f) Light shielding plate | ← |  |
| | | (g) Soldering (AF base plate FPC -- aperture interrupter) | ← | |
| | | (h) Aperture Mg wires (x2): (Red), (Blue) | ← | |
| | | (i) Mirror box: screws (x4): Two types.<br>Swing protective plate | ←<br>(Adjustment and inspection)<br>Adjustment of angle (45°) between main mirror and sub-mirror. (Refer to Repair Manual: Page A13, A14). |  |
| | | | | |
| 12 | AF driving base plate | 1A | ← |  |
| | | 3B | ← | |
| | | (a) Soldering of F-Fo base plate. | ← | |

| | | | | |
|---|---|---|---|---|
| 12 | AF driving base plate | (b) F-Fo base plate: screws (x2) and washer. (mainly left side.) |  <br>1. Turn eccentric screw to shift F-Fo base plate to the right limit as viewed from the bottom.<br>2. Attach F-Fo tool lens J18202 to the body.<br>3. Set the exposure mode to A or M, and turn eccentric screw slowly in the direction from "a" to "b" while observing the aperture display. And stop at the very moment when it shifts to F2 from F1.8.<br>*If aperture display value exceed F2, set the F-Fo base plate to the right limit and make readjustment.<br>(*) Make above adjustment after mounting top cover. |  <br>  <br>Horizontal lever base plate.<br>A2-17028FA (x2) |
| | | (c) Horizontal lever base plate (screws x2) | ← | |
| | | | •Place under the AF vertical lever.<br>•Insert in the groove of AF coupling collar | |
| | | (d) Double coated adhesive tape at AF lock switch. | ← | |

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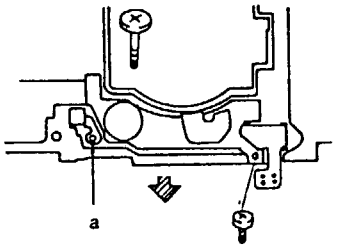
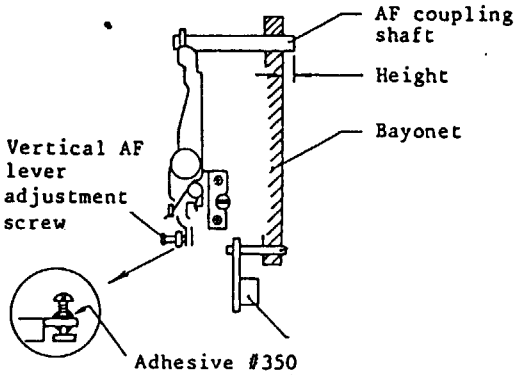
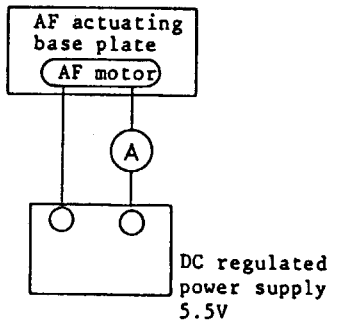
|---|---|---|---|---|
| 12 | AF driving base plate | (e) Soldering of AF mode selector switch. | ← | 1K120-268<br>  <br><br>1K120-017-1 |
| | | (f) AF driving base plate: screws (x2). Two types. | ←<br>*Attach by moving toward down.<br><br>(Inspection and adjustment)<br>•Adjustment of AF coupling shaft.<br>Adjust AF coupling shaft with vertical AF lever adjustment screw to protrude by 1.6±0.1mm from the bayonet surface.<br>Standard: 1.6±0.1mm.<br><br>•Operating adjustment of AF driving base plate.<br>Movement of gear train should be smooth in both normal and reverse rotations.<br>Standard: 80mA or less |  <br><br>  <br> |

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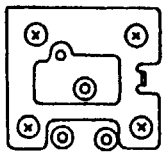
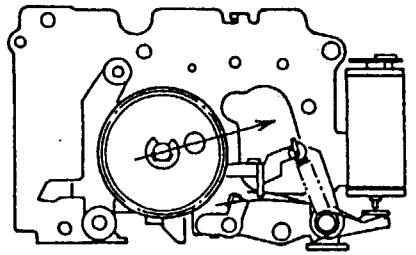
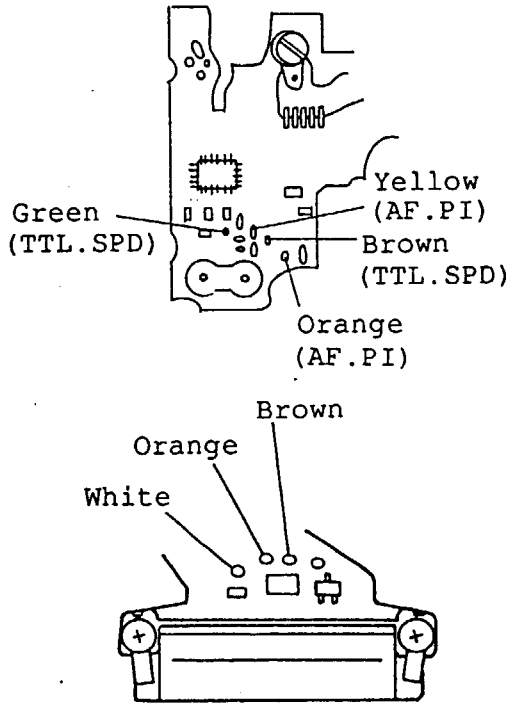
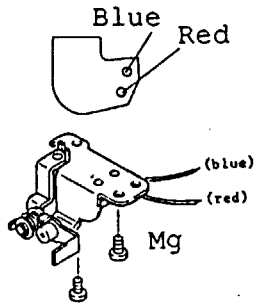
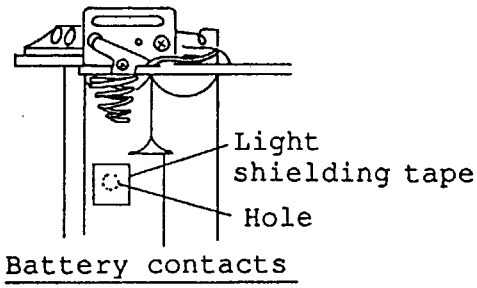
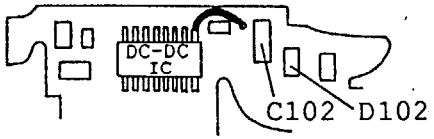
|---|---|---|---|---|
| ⑴A | Bayonet | •Bayonet: screws (x5), two types. (Bayonet and AF coupling collar will be removed at the same time.) | ← | (Refer to Repair Manual on page D3.) |
| ⑴B | Camera back lock release | •Supplementary front cover (rubber leather) | | (Refer to Repair Manual on page F2.) |
| ⑵A | Inspection and adjustment of AE accuracy | | | |
| ⑵B | Inspection and adjustment of AF accuracy | | | |
| ⑶A | Top cover FPC | •Mounting: screws (x7), two types.<br>•Wires (x2) from piezo buzzer.<br>•Remove tape (2 portions)<br>•Remove soldering (5 portions): Accessory shoe. | •Metering selection button. Take care of mounting position of self-timer button.<br>•Be careful of the direction of illumination rubber switch. | (Refer to Repair Manual on page B20)<br>  |

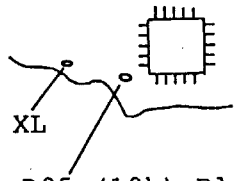
| | | | | |
|---|---|---|---|---|
| (3B) | Front cover | •Remove remote control cap.<br>•Remove supplementary front cover (rubber leather)<br>•AF mode selector switch knob screw (x1), cover, and name plate.<br>•Handgrip red line screws (x2)<br>•Front cover screws (x3) | ← | ← |
| (3C) | Handgrip | •Handgrip red line: screws (x2)<br>•Mounting screws (x2) and conductive seal<br>•Camera back hinge cover: screws (x3) | ← | |
| (3D) | Sequence base plate film advance unit | •Mounting cover plate: screws (x2)<br>•Removing wires (white) x2.<br>•Remove wire (brown) on main FPC.<br>•LCD fixing screws (x2) and wire holder.<br>•Main FPC holding screw (x1).<br>•Mounting screws (x4): Two types. | ← | ←<br>  <br>State of sequence starting position. |

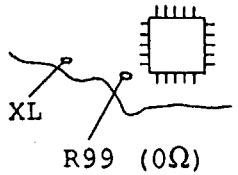
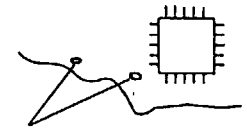
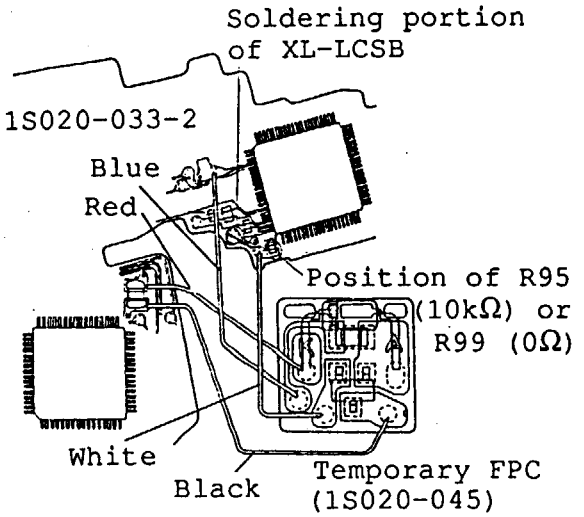
| | | | | |
|---|---|---|---|---|
| ④A | AE SPD FPC | •Press contact screw (x1) and press contact plate.<br>•Remove soldering (Lower part of press contact).<br>•Remove soldering of AE SPD after wiping off moisture proof coating (Seal-Glow).<br>•SPD holding plate screws (x2) | ← | |
| ④B | Main FPC | •Remove wires: (Green), (Yellow), (Brown), (Orange), (red).<br>•Remove soldering of remote terminal pins.<br>•Remove soldering of AE.SPD.FPC after wiping moisture proof coating (Seal Glow).<br>•Press contacts: screws (x5); 3 portions. Press contact plate.<br>•Main FPC holder screw (x1).<br>•Remove wires: (White), (Orange), (Brown). (Remove the wire from illuminator on the main FPC.)<br>•Internal LCD press contacts: screws (x2), holder plate and press contact plate. | ← | Red (AF.PI)<br>  <br> |

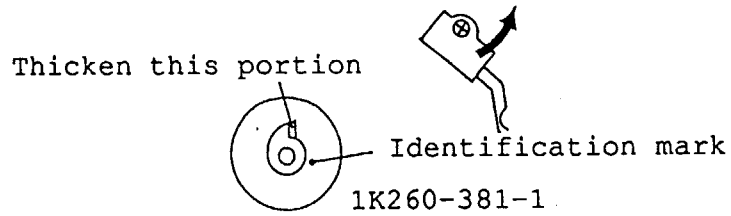
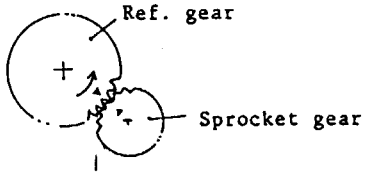
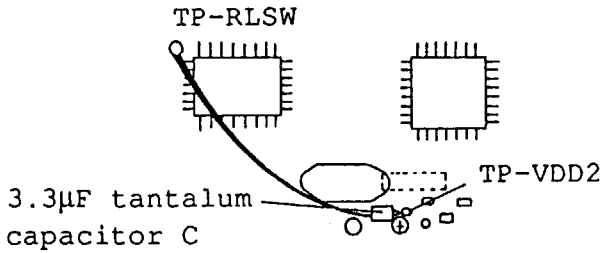
| | | | | |
|---|---|---|---|---|
| ④C | Aperture Mg | •Set AF mode selector switch to S or C (other than "M".)<br>•AF FPC fixing screw (x1)<br>•Remove wires (x2).<br>•Fixing screws (x2). | ← |  |
| | | | | |
| ⑦A | Film detection switch base plate. | •Peel off light shielding tape and remove a screw by putting a driver in through the hole. | ← |  |
| | | | | |
| ⑨A | Film advance motor base plate. | •Fixing screws (x3): Two types. | ← | (Refer to Repair Manual on pages B4 to B8.) |

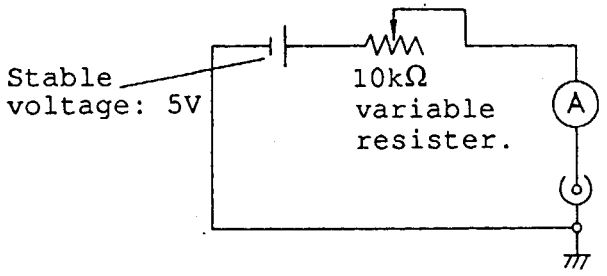
HISTORICAL RECORDS OF IMPROVEMENT

| | SUBJECTS, CONTENTS | Reference No. of Technical Information |
|---|---|---|
| 1 | Generation of smoke in DC-DC converter.<br>There seems to be three portions from where smoke is generated.<br>1. DC-DC IC<br>2. Tantalum capacitor (C102)<br>3. Diode (D102)<br><br>Measures<br>Attach jumper lead wires to pin 1 of DC-DC IC.<br>  | F801-880020<br>(88F-2012) |
| 2 | Identification due to modification of LCD driving voltage and compatibility of main FPC and internal and external LCDs. | F801-880033<br>(88F-1030)<br>F801-880053<br>(88F-1041) |

| Main FPC | LCD (5V) | LCD (3V) |
|---|---|---|
| 1S020-033-2 (5V)<br>  | Int. LCD: 1S020-013<br>Ext. LCD: 1S020-012<br><br>(As they are) | Int. LCD: 1S020-013-1<br>Ext. LCD: 1S020-012-1<br>(1) Remove R95 and mount resistor (0Ω).<br>(2) Remove soldering of XL.<br>(3) Mount temporary FPC: (1S020-045) |

| | | | | |
|---|---|---|---|---|
| 2 | 1S020-033-2 (3V)<br>Main FPC on which temporary FPC is mounted.<br>  <br> | (1) Remove R99 and mount R95 (10k).<br>(2) XL soldering bridge<br>(3) Remove temporary FPC. | (As they are) | |
| | 1S020-033-5<br>(new type)<br>  <br> | (1) Remove wire<br>(2) Remove diode<br>(3) Soldered bridge<br>(4) Remove R98 and mount R95 (10k). | (As they are) | |
| | Wiring diagram for additional mounting positions on temporary FPC.<br>  <br> | | | |

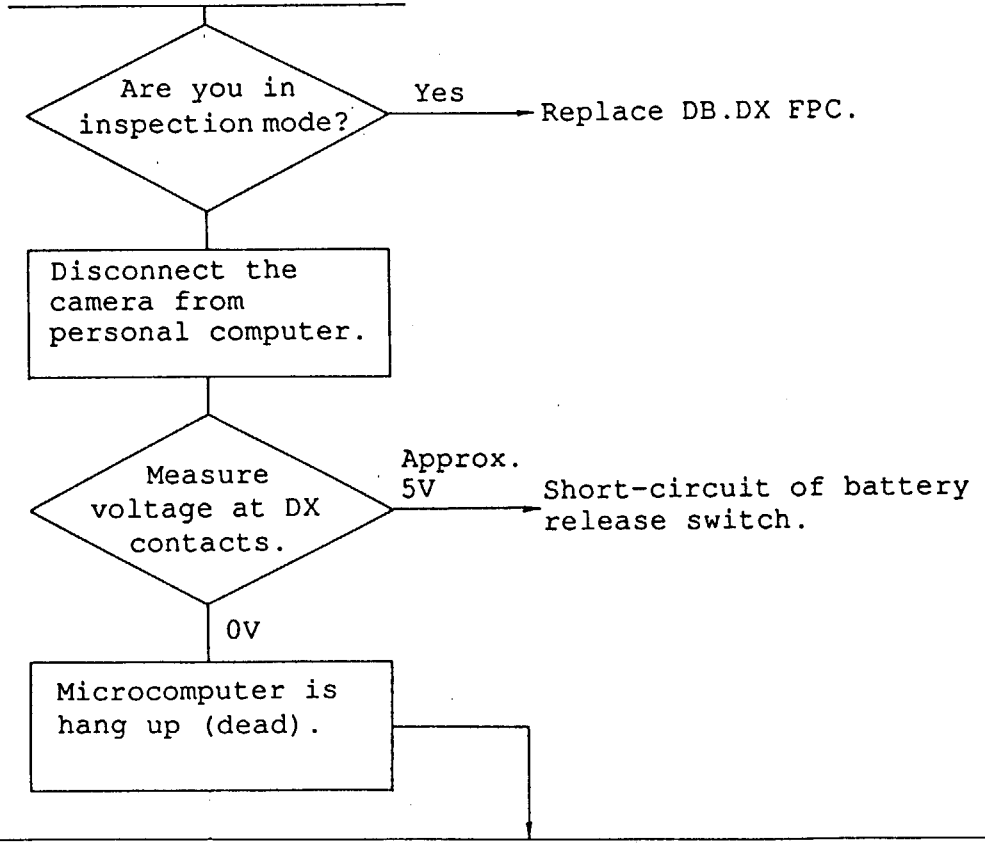
| | | |
|---|---|---|
| 3 | Frame discrepancy for perforated film.<br>CAUSE<br>Film is advanced a little too much for the aperture because the switch-OFF timing of the reference switches is set too early.<br>MEASURES<br>1. Turn the reference switches (counter-clockwise).<br>2. Replace the cam of the reference gear with a modified one.<br>  <br><br>Or move the reference gear counter-clockwise by one cog.<br>  <br> | F801-880045<br>(88F-1039) |
| 4 | Shutter is released several times when shutter releases slowly in "S" (shutter priority auto) mode.<br>CAUSE<br>Chattering of shutter release switch.<br>MEASURES<br>Add a capacitor (3.3µF) between shutter release switch line and VDD line.<br>  <br> | |

| | | |
|---|---|---|
| 5 | Poor firing of large capacity flash<br><br>Use following circuit to check trickle current of TRIAC if the holding current value of TRIAC is less than 1.5mA.<br><br>  <br><br><br>Holding current: The current value when X contact (TRIAC) holds the ON state when releasing shutter while lowering the value of variable resister. | |
| 6 | Shutter cannot be released. Display will not go out even when main switch is turned OFF. (Battery is used up.)<br>CAUSE<br>1. Inspection mode.<br>Inspection mode when DX contacts (between the lowest and 2nd or 3rd contact) are short-circuited while shutter prerelease switch is being ON.<br>2. AF microcomputer is malfunctioning (or microcomputer is dead.)<br>•This occurs when non-DX coded film is loaded due to generation of static electricity during film advance operation.<br>•This occurs when using a flash with a high X contact voltage as large flash.<br>•Vcc supply becomes impossible instantly.<br>3. Battery holder is mounted incorrectly.<br>4. Battery release switch is defective. | |

6

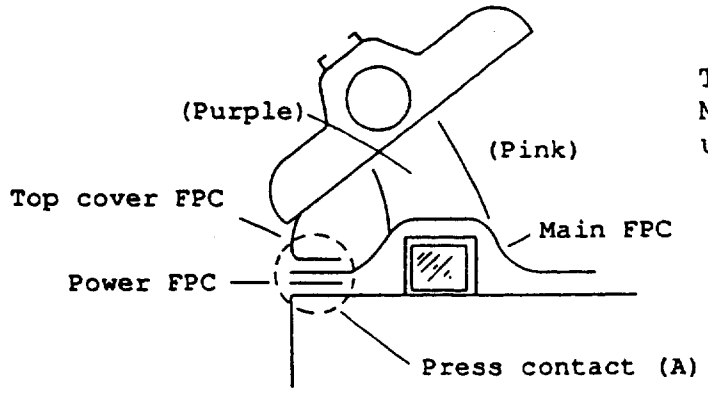
In case of camera having problems ( certain phenomenon present).

INSPECTION
1. Use personal computer to communicate with proper tool body.
2. Select read/write of EEPROM and enter into inspection mode.
3. When EEPROM menu appears, detach communication tool from proper body, and mount a troubled body.
4. Select "Returns to main menu" from menu of EEPROM.
5. When a message "Escaped from inspection mode" appears on the screen, you can confirm that you were in "Inspection mode". You can tell the cause of trouble is attributable to other causes if a message "Communication error" appears.



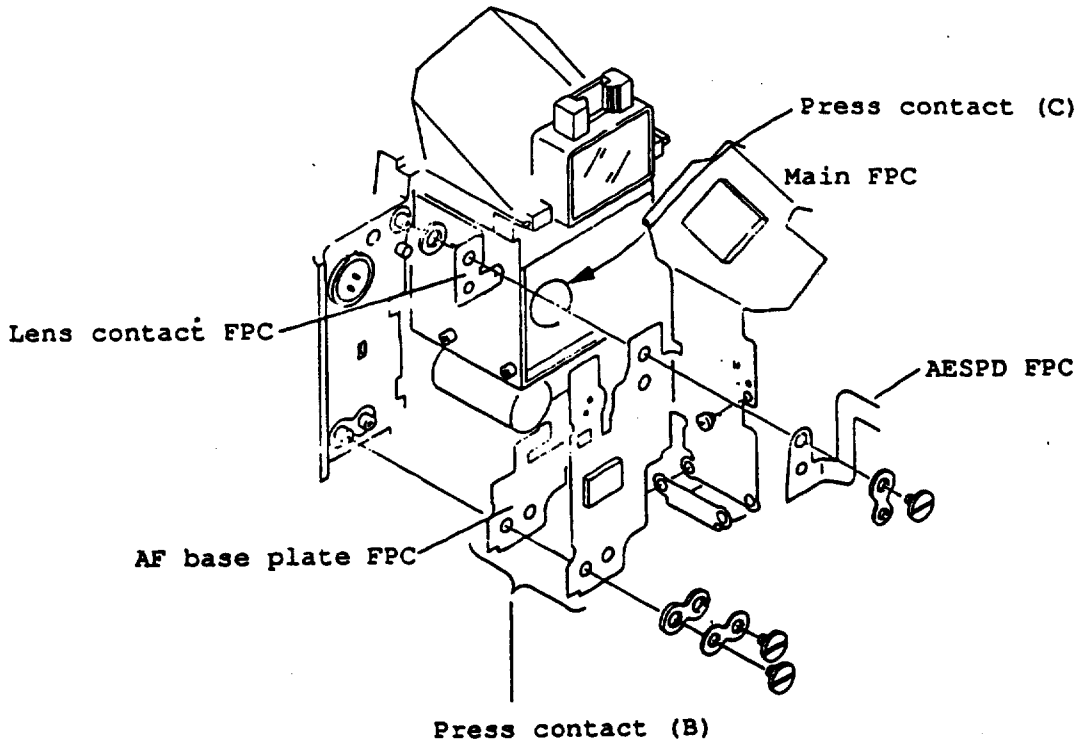
4. Following terms used in the flowcharts represent:

(1) Press contact (A) = Top cover FPC ~ Main FPC ~ Power FPC

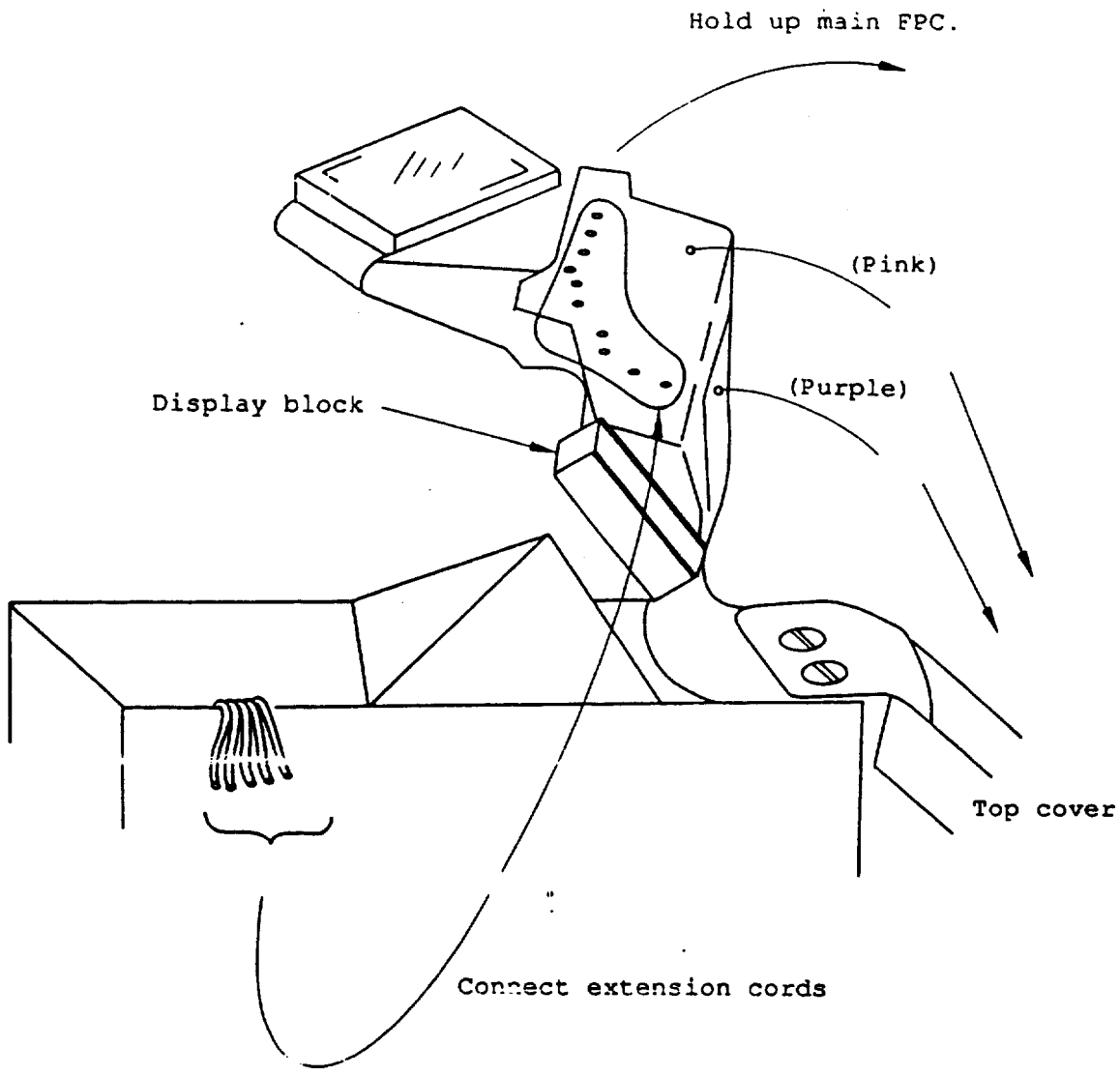



Top cover for tool
Make a top cover for tool using repair parts.

(2) Press contact (B)=AF base plate FPC ~ Main FPC
Press contact (C)=Lens contact FPC ~ Main FPC



(3) Jumping cord
It is impossible to measure terminal voltage of IC because SQ-I/F, SQ-MCU are located on the rear side of the main FPC when the main FPC is mounted. Accordingly, as shown in the figure below, remove top cover, hold up display block and main FPC (while not removing press contact (A) and cords (pink and purple)), and connect extension cords.



# C O N T E N T S


| | Page |
|---|---|
| A. Camera does not operate at all. | |
| Display does not appear when main switch is turned ON. No other operations function. | A1 |
| B. Malfunction of shutter prerelease operation | |
| Shutter prerelease switch is not turned ON. | B1 |
| Shutter prerelease switch is not turned OFF. | B8 |
| Shutter prerelease switch is not turned OFF, LCD display does not change, shutter can not be released, LCD display does not go out even when main switch is turned OFF. | B10 |
| Shutter is released with shutter prerelease operation. | B10 |
| Shutter operation does not hold for 8 seconds. | B10 |
| C. Malfunction of shutter release operation | |
| Shutter can not be released when film is not loaded and camera back is closed. | C1 |
| Shutter can not be released when film is loaded and camera back is closed. | C2 |
| Camera operates as AF-C mode though it is set to AF-S mode. (Shutter can be released in out of focus.) | C3 |
| Camera operates as AF-S mode though it is set to AF-C mode. (Shutter can not be released unless in focus.) | C4 |

D. Malfunction of AF operation

| | |
|---|---|
| Malfunction of focus aid. (Focus indicators do not appear) | D1 |
| Malfunction of AF servo operation | D3 |
| AF servo operation is unstable. | D4 |
| Focus indicators appear even when subject is not in focus on the focusing screen, or subject is not in focus and camera performs scanning operation only. | D5 |

E. Malfunction of LCD display

| | |
|---|---|
| No display appears. (Camera operates properly.) | E1 |
| Exposure mode mark is incorrect. | E1 |
| Metering mode mark is incorrect. | E2 |
| Exposure compensation mark is incorrect. | E2 |
| Exposure compensation indicator is incorrect. | E3 |
| Film speed setting mark is incorrect. | E3 |
| Shutter speed setting mark is incorrect. | E4 |
| Aperture value display is incorrect. | E4 |
| Film advance mode mark is incorrect. | E5 |
| Film installation mark is incorrect. | E5 |
| Film advance and rewind mark is incorrect. | E5 |
| Self-timer mark is incorrect. | E6 |
| Multiple exposure mark is incorrect. | E6 |
| Frame counter display is incorrect. | E6 |
| Focus indicators (inside viewfinder LCD) are incorrect. | E7 |
| Ready-light LED (inside viewfinder) does not light up. | E8 |

F. Malfunction of film rewind operation

| | |
|---|---|
| Film rewind operation does not work. | F1 |
| When film rewind button is pressed, frame counter shows "E" and motor stops, then film rewind operation become impossible. | F3 |
| When film rewind button is pressed, ... or frame counter shows "0" while rewinding film (film rewind operation is completed). | F3 |

G. Malfunction of film advance operation

| | |
|---|---|
| Camera operation stops while showing frame advance error | G1 |

H. Sequence error

Use AI-based Trouble Diagnosis System.

I. Inspection of shutter operation (Accuracy and shutter Mg control)

Use AI-based Trouble Diagnosis System.

J. Malfunction of exposure control operation

| | |
|---|---|
| Always the minimum aperture value in P, S mode. | J1 |
| Unstable aperture control in P, S mode. | J5 |
| Aperture is not correctly controlled in M, A mode. | J5 |
| Exposure is not properly controlled in A, S, P mode. | J6 |

K. Malfunction of self-timer operation

| | |
|---|---|
| Self-timer operation does not work properly. | K1 |
| Self-timer mark does not appear while self-timer operation works properly. | K2 |

L. Malfunction of battery consumption

| | |
|---|---|
| Quick battery power consumption. | L1 |
| Heat is generated in battery. | L2 |

M. Malfunction of sync flash operation

| | |
|---|---|
| Ready-light LED (inside viewfinder) does not light up. | M1 |
| Flash does not fire. | M2 |
| Fault warning after shooting does not light up in TTL mode. | M3 |
| Correct exposure is not determined in TTL mode. | M4 |
| Flash does not synchronize. | M5 |
| AF illuminator light does not light up in AF-S mode (other operations work properly). | M6 |
| Insufficient firing | M6 |

N. Others

| | |
|---|---|
| Illuminator does not light up. | N1 |
| Instant reset is impossible. | N2 |
| Multiple exposure mode does not work. | N3 |
| Picture is shaded. | N3 |

| | | | |
|---|---|---|---|
| Solder scrap is attached on power FPC: Q105 (between E and C). | Shutte, speed, aperture values are not displayed. | | Sequence motor rotates loosely. |
| | | | |

# Additional Material
# for
# F-801 Practical Repair Manual

(Simplified Troubleshooting for CPUs, ICs and Other Electronic Parts)

NIKON CORPORATION

[Introduction]

1. This document is an appendix for the previously-issued F-801 (N8008) Practical Repair Manual.
2. This material describes trouble affecting CPUs, ICs and other electronic parts which actually occurred in the Service Division and Production Division.
3. Item numbers 1, 2 and 3 etc., ... in Cause of Trouble do not indicate any order of frequency in occurrence. (They are reference numbers only.)
4. Descriptions in Classification of Trouble and Phenomenon of Trouble may not be consistent with each other because each service engineer has a different understanding of troubles. Be sure to read this material well before you start troubleshooting.
5. Descriptions in Phenomenon of Trouble and Cause of Trouble may be partially ambiguous due to the fact that service engineers could not fully understand and analyze data. We are sorry for causing you any inconvenience.
6. Troubles in CPUs, ICs and other electronic parts are caused mainly by disconnection of soldered devices near the bent portion of FPCs. (Defective CPUs have rarely been found.) You are recommended to troubleshoot while observing troubles with a stereo microscope or a magnifier. We have adopted the same method in our Production Division. (Since cameras are controlled by communications between ICs, troubleshooting by measuring voltage and waveforms is actually impossible.)

[Abbreviation]

C105: Capacitor 105
R80: Resistor 80
Q402: Transistor 402
L101: Inductor 101
No. in [ ]: IC pin number
AF PI: AF photo interrupter
FM PI: Film-feed photo interrupter
Poor soldering:
Poor soldering, disconnection, and short-circuit caused by soldering, poor wiring, defective IC pins, break in FPC patterns and open circuits
Poor press contact:
Shift in press contact position and contamination on the press contact patterns

| Classification of Trouble | Phenomenon of Trouble | Cause of Trouble |
|---|---|---|
| Current flows (more than several mA) continuously when the main switch is turned OFF. (Holding current: Less than 150 μA) | Vcc=Approximately 0.0V | 1) Defective DC-DC converter (power FPC)<br>2) Poor soldering of L101 (power FPC) (or disconnection)<br>3) AF PI (Vcc) and front body die-cast are short-circuited. |
| | Vcc=Approximately 1.0V | 1) Poor soldering of L101 (power supply FPC) (or disconnection) |
| | Vcc=Approximately 1.3V | 1) Poor soldering of L102 (power FPC) (or disconnection)<br>2) Poor soldering of Vcc wire (power FPC) (or disconnection) |
| | Vcc=Approximately 3.0V | 1) Poor soldering of diode (not identified, in the power FPC) (or disconnection)<br>2) Poor soldering of DC-DC converter (power FPC) (or disconnection) |
| | Vcc=Approximately 1.5V | 1) AV PI cathode terminal and GND.are short-circuited. |
| | The LCD display does not go on. Vcc=0.0V | 1) Incorrect wiring between Vcc and GND at the rear body side. |
| | Vcc voltage is normal for a while after the power is turned ON, but it decreases every time the shutter is released. | 1) Poor soldering of diodes (or disconnection) between C105 and L102 (power FPC) |
| | Vbat, Vdd and Vcc are not output. | 1) Incorrect wiring of solenoid and Vbat on the power FPC. |
| | The LCD display does not go ON. Current flows continuously. Operation is normal when the top cover is removed. | 1) C17 and any wires near the LCD display are short-circuited. |
| | A current of 60 mA flows continuously regardless of main switch operation. The LCD display does not go ON, and the shutter cannot be released. | 1) Defective AF-MCU<br>Defective AF-I/F can be regarded as another cause. |

| | | |
|---|---|---|
| Current flows (more than several mA) continuously when the main switch is turned OFF. (Holding current: Less than 150 µA) | When the main switch is ON, the display goes into a confused state. | 1) Poor soldering of SQ-MCU [33] (or disconnection) |
| | Although the main switch is turned ON and OFF, the LCD display functions normally. | 1) A short-circuit is caused by solder chips due to press contact between the main FPC and the power FPC. |
| | When the main switch is turned ON, the shutter sometimes cannot be released. The buzzer sounds at short intervals. | 1) AF-I/F is short-circuited between [25] and [26]. |
| | The LCD display does not go ON. Latch is output from AF-MCU only when the power is turned ON. | 1) Poor soldering of AF-MCU [37] (or disconnection) |
| | After power is turned ON, a normal oscillation of 8 MHz is generated. Immediately after the shutter pre-release switch is turned ON, AF-MCU [72] and [80] latch waveforms are output. (Measure latch waveforms with an oscilloscope. If any waveform is output, regard it as normal, since it is difficult to judge which waveforms are abnormal.) | 1) Poor soldering of AF-MCU [79] and [80] (or disconnection)<br>2) AF-MCU [7] and [8] lines are short-circuited.<br>3) Poor soldering between SQ-I/F [16] and LCD-Dr [4] (disconnection(<br>4) Poor soldering of R33 (or disconnection)<br>5) Poor soldering of AF-MCU [40] (or disconnection)<br>6) R80 is short-circuited. |
| | After power is turned ON, a normal oscillation of 8 MHz is generated. Immediately after the shutter pre-release switch is turned ON, AF-MCU [72] and [80] latch waveforms are not output. | 1) The line of the battery holder release switch is broken.<br>2) Poor press contact of Vdd wire<br>3) The lines of the battery holder release switch and Q106 (power FPC) base are short-circuited.<br>4) Poor soldering of AF-MCU [1] (or disconnection) |

| | | |
|---|---|---|
| Current flows (more than several mA) continuously when the main switch is turned OFF. (Holding current: Less than 150 μA) | After power is turned ON, a normal oscillation of 8 MHz is generated. Immediately after the shutter pre-release switch is turned ON, no AF-MCU [72] and [80] latch waveforms are output. (SQ-I/F [17] and AF-MCU [1] are conducted.) | 1) Poor soldering of R15 (or disconnection) |
| | After power is turned ON, an oscillation of 8 MHz is not generated. Immediately after the shutter pre-release switch is turned ON, AF-MCU [72] and [80] latch waveforms are not output. (AF-MCU [1]=no voltage, SQ-I/F [17]=no voltage) (AF-MCU [9]=voltage applied, AF-MCU [16]=no voltage) | 1) Breaking of 1 MHz wire |
| | Immediately after the shutter pre-release switch is turned ON, AF-MCU [72] and [80] latch waveforms are not output. (AF-MCU [1]=Lo, SQ-I/F[1]=Hi, SQ-IF [17]=Lo) | 1) AF-I/F is short-circuited between [36] and [39]. |
| | Immediately after the shutter pre-release switch is turned ON, AF-MCU [72] and [80] latch waveforms are not output. Defective LCD display | 1) Poor soldering of AF-I/F [39] (or disconnection) |
| | Others | 1) Defective 8 MHz oscillator<br>2) Defective top cover FPC<br>3) Poor press contact between main FPC and DB-DX FPC |

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| Abnormal current | 200 mA or above | 1) Vbat and GND are short-circuited.<br>2) Poor soldering of DC-DC converter (power FPC) [8] (or disconnection)<br>3) Poor soldering of DC-DC converter (power FPC) [1] (or disconnection)<br>4) DC-DC converter (power FPC) is short-circuited between [1] and [2].<br>5) Defective AF FPC<br>6) Poor soldering of buzzer (top cover FPC)<br>7) Vcc wire (pink) and GND are short-circuited.<br>8) Illuminator wire (brown) and other parts (chip resistor, etc.) are short-circuited.<br>9) Defective DC-DC converter (power FPC) |
| | Immediately after power is turned ON, an abnormal current flows. It turns normal soon but indication on the ammeter is unstable. | 1) DC-DC converter (power FPC) is short-circuited between [1] and [2]. |
| | Battery consumption is very fast and the F-81 does not operate at all. | 1) L-101 (power FPC) is short-circuited. |
| Incorrect power consumption (Power consumption: 80-201 mA or less) | 212 mA | 1) Poor press contact between AF FPC and main FPC |
| | 210 mA | Defective FM PI |
| | 204 mA | 1) Contamination on the press contact between AF FPC and main FPC |
| | 212 mA | 1) AF-MCU is short-circuited between [16] and [17]. |
| | 218 mA | 1) AF-MCU is short-circuited between [18] and [19]. |
| | 220 mA | 1) Defective AF PI |
| | 237 mA - 249 mA | 1) Poles of C101 (power FPC) are reversely attached. |

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| Incorrect power consumption (Power consumption: 80-201 mA or less) | Entering the test mode surpasses the normal current by approximately 40 mA. | 1) Poor soldering of jumper wire (white) from Q5 (or disconnection)<br>2) Poor wiring of jumper wire (white) from Q5 |
| | The shutter pre-release timer remains ON. | 1) Defective SQ-IF |
| | When the shutter pre-release switch is ON, a current of approx. 200-400 mA flows. The LCD display does not go off after the main switch is OFF. | 1) Defective DC-DC converter (power FPC)<br>2) Defective power FPC |
| | Defective LCD display, Main switch OFF=1.3 mA, Main switch ON and shutter pre-release switch ON=81 mA | 1) Defective SQ-I/F |
| Defective LCD display | When the shutter pre-release switch is ON, displayed characters and figures are missing in part. | 1) Poor positioning of the internal LCD display<br>2) Defective LCD unit inside the viewfinder<br>3) Defective LCD panel<br>4) Disconnection of bracket of the external LCD unit |
| | The display is blurred. | 1) Poor soldering of R75<br>2) Incorrect resistance of R75 |
| | All characters and figures are displayed. | 1) Poor soldering of DC-DC converter (power FPC) [1]<br>2) Defective DC-DC converter (power FPC)<br>3) Poor soldering of R11 |
| | The display is not presented. | 1) Break in line between SQ-I/F [16] and LCD-Dr [4]<br>2) Poor press contact between the main FPC and the power FPC<br>3) Shift in press contact position of the internal LCD.<br>4) R10 is short-circuited. |
| | The display is not presented.<br>Incorrect waveforms of LCD-Dr [21] and [22] | 1) Poor soldering of LCD-Dr [2] (or disconnection) |
| | The display is not presented.<br>Self-timer LED is remained lit. | 1) LCD-Dr [1] and R15 are short-circuited. |

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| Defective LCD display | The display is not presented. The display becomes lighter when the shutter release switch is turned ON. | 1) Poor soldering of DC-DC converter (power FPC) [10] (or disconnection) |
| | "ME 1" is displayed. | 1) Break in wire between SQ-MCU [63] and SQ-I/F [44]. |
| | The display does not change. | 1) Poor soldering of command dial brush.<br>2) Poor press contact between top cover FPC and main FPC.<br>3) Command dial brush is short-circuited. |
| | The external LCD panel vibrates. | 1) Defective R77 |
| | The display does not go off. | 1) Defective R77 |
| | The display blinks when the shutter prerelease switch is turned ON. The display does not change. | 1) Defective AF-MCU<br>2) Defective DC-DC converter (in the case where the power is turned ON again) |
| | The display disappears when the initial shutter pre-release is pressed. (Power consumption is approximately 60 mA.) The display functions normally after the shutter pre-release timer is turned ON. | 1) Defective SQ-MCU |
| | The shutter cannot be released sometimes. The display blinks. This phenomenon is apt to occur in the AF mode "S." | 1) Defective DC-DC converter (power FPC) |
| | Display segments are only partly lit. | 1) Poor soldering of R75 (or disconnection) |
| | Self-timer LEDs do not go ON. | 1) Poor press contact between top cover FPC and main FPC |
| | The flash Ready light is ON continuously. | 1) Defective Q402 (top cover FPC) |

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| Defective LCD display | The flash Ready light does not go ON. | 1) Poor soldering of D403 (top cover FPC) (or disconnection)<br>2) Poor soldering of SQ-I/F [1]<br>3) Break in wire between SQ-I/F [1] and Ready LEDs<br>4) SQ-I/F is short-circuited between [1] and [2]. |
| | The illuminator does not go ON. | 1) Poor wiring of illuminator wire<br>2) Poor soldering of illuminator wire. (or disconnection)<br>3) Poor press contact between top cover FPC and main FPC |
| | The illuminator is ON continuously. | 1) Poor soldering of R33 (short-circuit) |
| Incorrect display of aperture value | The display of aperture value changes only from F11 to F22. | 1) AF-MCU is short-circuited between [28] and [29]. |
| | The displayed aperture value is only F5.6. | 1) Poor soldering of AF-MCU [29] (or disconnection) |
| | Incorrect display of aperture value | 1) Poor soldering of F-Fo base plate (short-circuit)<br>2) Incorrect display of F-Fo base plate resistance<br>3) Contamination on the F-Fo base plate. |
| | The aperture value displays "Lo" in "A", "P", and "S" mode. It becomes normal when the top cover of the display is removed | 1) The buzzer wire (top cover FPC) and TP-ACPU31 (main FPC) are short-circuited. |
| Malfunction of metering | No metering output | 1) The eyepiece light shielding plate and top cover are short-circuited.<br>2) Poor soldering between AF-MCU [40] and [45]. |
| | Low metering output | 1) Poor soldering of R60 (short circuit)<br>2) Defective R60<br>3) AF-MCU is short-circuited between [44], [45] and [56].<br>4) AF-MCU [52] and GND is short-circuited. |

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| Malfunction of metering | Metering output is out of standard value. | 1) Poor soldering of R58 (short-circuit)<br>2) Poor soldering between AF-I/F [45] and [48] (or disconnection)<br>3) Poor soldering of R60 (disconnection<br>4) Poor soldering of R59 (or disconnection)<br>5) Poor soldering of R57 (or disconnection)<br>6) Poor soldering between SPD FPC and main FPC (XL-K2 open-circuited)<br>7) Poor soldering between SPD and SPD FPC (or disconnection)<br>8) Poor soldering of R35 (or disconnection) |
| | Metering output (upper right) is out of standard value. | 1) Poor soldering between SPD FPC and main FPC (XL-K1 and XL-K2 short-circuited) |
| | All metering outputs are extraordinarily high. | 1) Poor soldering of R59 (or disconnection)<br>2) Poor soldering of R56 (or disconnection)<br>3) Poor soldering of AF-MCU [24] (or disconnection)<br>4) Break in AF-MCU [24] circuitry (or disconnection)<br>5) F-Fo base plate is short-circuited between Vref and GND<br>6) Patterns on the AF base plate are short-circuited. |
| | Metering output (lower left) is out of standard value. | 1) Poor soldering between SPD FPC and main FPC. (XL-K5 open-circuited) |
| | Metering output (lower left and upper left) are out of standard value. | 1) Poor soldering between SPD FPC and main FPC (XL-K4 and XL-K5 short-circuited) |
| | Difference in metering output at LV15 and LV12 is small. | 1) Poor soldering of R58 (or disconnection)<br>2) Incorrect resistance of R58 |

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| Malfunction of metering | Metering output does not change even if luminance is changed. | 1) Poor soldering of AF-MCU [31] (or disconnection)<br>2) Poor soldering of R35 and R58 (or disconnection) |
| | Shutter speed per second does not vary even if luminance is changed.<br>Shutter speed varies if aperture is changed. | 1) Defective AF-MCU |
| | Exposure value does not change. (The AE lock switch remains ON.) | 1) Poor soldering of R38 (or disconnection) |
| Malfunction of sequence | The mirror moves up during easy loading. | 1) The red wire of the sequence motor and the red wire of the film advance motor are short-circuited. |
| | The mirror moves up in the exposure mode "S" or "P." The lever 3.1 stops in the middle and the display blinks. | 1) AF FPC (XL-Vcc) and GND are short-circuited. |
| Sequence error | Only the lever 3.1 is lowered and the mirror does not move up. "Err" is displayed. | 1) Malfunction of solenoid |
| | The mirror moves up and goes into error. | 1) Break in solenoid wire<br>2) Poor soldering of solenoid wire (or disconnection)<br>3) Poor press contact of main FPC and power FPC (the line of solenoid)<br>4) Poor soldering of synchronized flash cord (or disconnection)<br>5) Poor soldering of SQ-I/F [55] (or disconnection) |
| | The speedlight does not fire. (X shutter speed setting is not turned ON.) | 1) Defective shutter |
| | The front curtain does not run. (Mg is not turned OFF.) | 1) Defective shutter (incorrect transistor for Mg control) |

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| Sequence error | The shutter curtain does not open. | 1) Defective shutter (poor soldering of the transistor for Mg control)<br>2) Incorrect position of shutter release lever (I base plate)<br>3) Break in power FPC circuitry (soldering point and shutter).<br>4) Poor soldering of power PPC and shutter<br>5) Defective shutter (break in rear-curtain Mg wire)<br>6) poor press contact between main FPC and power FPC<br>7) Defective shutter (malfunction of shutter charge lever) |
| | The shutter cannot be charged. | 1) Incorrect attachment of sequence base plate<br>2) Trapping of power FPC and shutter release lever (I base plate) |
| | Only the solenoid operates when the shutter release switch is ON. | 1) The wires of the sequence motor stop switch and the back cover switch are short-circuited.<br>2) The sequence motor stop switch is short-circuited. (Metal swarf is stuck on the switch insulation washer.)<br>Sequence motor stop switch is deformed. |
| | Idle running of sequence motor | 1) Foreign materials have entered the sequence base plate.<br>2) Break in sequence motor stop switch wire at the external LCD panel) |
| | The shutter does not operate fully when the shutter release switch turned ON. | 1) Poor press contact between main FPC and power FPC |
| | When the mirror moves up, it goes into error. Only the solenoid operates when the shutter release switch is turned ON again. | 1) Poor wiring of sequence motor stop switch and rear curtain switch |

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| Sequence error | Only the solenoid operates when the shutter release switch is ON, or it goes into error when the mirror is raised. | 1) Defective sequence motor stop switch |
| No operation at all | The LCD display does not go on when the main switch is turned ON. | 1) Break in top cover FPC main switch wire.<br>2) C17 and wires around the external LCD panel are short-circuited. |
| | The LCD display functions normally when the main switch is turned ON and OFF, but the shutter cannot be released. | 1) AF-MCU is short-circuited between [6] and [7]. |
| | The display is not presented and the shutter cannot be released. | 1) C17 and wires near the external LCD panel are short-circuited.<br>2) Poor soldering of DC-DC converter (power FPC) GND (or disconnection)<br>3) Defective 8 MHz oscillator<br>4) Wire (white) of battery holder release switch is trapped. |
| | The LCD display functions normally when the main switch is turned ON and OFF, but sometimes the shutter cannot be released. | 1) Poor soldering of AF-I/F [7] (or disconnection)<br>2) Poor press contact between main FPC and power FPC<br>3) Poor press contact between main FPC and top cover FPC<br>4) Poor soldering of main switch section (top cover FPC) (or disconnection) |
| | Abnormal current flows.<br>Vdd=Approx. 3.5V | 1) Poor soldering of DC-DC converter (power FPC) [8] (or disconnection) |
| | The display is not presented. The shutter cannot be released. AF does not function. A current of approx. 100 mA, Vcc flows continuously when the power is turned ON. | 1) The battery holder release switch remains turned ON. |
| Malfunction of shutter release | The shutter is released when the shutter pre-release switch is turned ON. | 1) Lines of shutter pre-release switch and shutter release switch (top cover FPC) are short-circuited. |

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| Malfunction of shutter release | Continuous shutter release is set when the shutter pre-release switch is turned ON. | 1) Poor soldering of SQ-I/F [20] (or disconnection) |
| | Continuous shutter release is set when the power is turned ON. (The main switch ON) (Film advance mode: CH) | 1) Short-circuit inside the remote terminal section<br>2) Poor soldering inside the remote terminal section (short-circuit)<br>3) Shutter release switch is short-circuited.<br>4) Defective SQ-I/F. |
| | The shutter cannot be released. No figures are displayed. | 1) Poor soldering of R36 (or disconnection) |
| | The shutter cannot be released. "F--" remains on the display. | 1) The depth-of-field preview switch is short-circuited. |
| | The state of 'pre-release switch ON' occurs simultaneously when the main switch is turned ON. Then (in 8 seconds) nothing is displayed, and the shutter cannot be released by turning ON the shutter pre-release switch. | 1) Defective SQ-MCU |
| | With the self-timer switch OFF and the shutter release switch ON, the self-timer is activated. | 1) Defective SQ-I/F |
| | The shutter cannot be released.<br>Main SW is OFF, LCD is OFF (=7 mA)<br>Main SW is ON, LCD is ON (=7 mA)<br>Shutter pre-release SW is ON, LCD OFF (=63 mA) | 1) Defective AF-MCU |
| | The shutter cannot be released.<br>Main SW is OFF, LCD is OFF (=1.7mA)<br>Main SW is ON, LCD is ON (=60 mA) | 1) Defective remote terminal |
| | The shutter cannot be released.<br>Inspection by personal computer shows both the shutter release and pre-release switches are ON. | 1) Defective SQ-I/F |
| | The shutter cannot be released. With the main switch OFF, the LCD display does not go OFF. (45 mA) | 1) Poor soldering of SQ-MCU [61] (or disconnection) |

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| Malfunction of shutter release | The shutter cannot be released. The LCD display functions normally. After shutter release, no solenoid operation sound is heard. | 1) Poor soldering of SQ-I/F [55] (or disconnection) |
| | The shutter cannot be released. After shutter is released in "P" or "S" mode, the aperture value indicates "FEE." and blinks for 1 second during which shutter cannot be released. | 1) Poor soldering of SQ-MCU [21] and [23] (or disconnection) |
| Malfunction of flash firing and TTL metering | Defective TTL shutter speed | 1) Poor soldering of R50 (short-circuited)<br>2) Poor soldering of R53 (or disconnection)<br>3) Between TTL wire (green) and GND are short-circuited.<br>4) Poor soldering of AF-I/F [28] (or disconnection)<br>5) AF-I/F is short-circuited between [30] and [31].<br>6) AF-MCU is short-circuited between [34] and [35].<br>7) Poor soldering of R80 (short-circuit)<br>8) AF-MCU is short-circuited between [39] and [40].<br>9) Poor soldering of C9 (or disconnection) |
| | Full-flash output by TTL metering | 1) Poor soldering of TTL SPD wire (disconnection or mis-wiring)<br>2) Poor soldering of R52 (short-circuit)<br>3) Poor soldering of C11 (short-circuit)<br>4) Poor soldering of SQ-I/F [24] (or disconnection) |

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| Malfunction of flash firing and TTL metering | Insufficient flash output by TTL metering | 1) Poor soldering of R51 (or disconnection)<br>2) Poor soldering of R50 (or disconnection)<br>3) Poor soldering of R53 (short-circuit)<br>4) .Poor soldering of AF-MCU [37] (short-circuit)<br>5) Poor soldering of AF-MCU [31] (short-circuit)<br>6) Poor soldering of R8 (or disconnection)<br>7) AF-MCU is short-circuited between [27], [28] and [29].<br>8) Poor soldering of AF-I/F [28] (or disconnection)<br>9) AF-I/F is short-circuited between [30] and [31]. |
| | Flash does not fire. | 1) Poor soldering of SQ-I/F [29] (or disconnection)<br>2) Poor soldering of synchronized flash cord (purple)<br>3) Defective D401 (top cover FPC) |
| | Flash is not synchronized.<br>Shutter speed and TTL metering are correct. The flash light is not synchronized with SB-24. One-third of the upper frame is synchronized with rear synchro. Synchro switch remains ON at switch inspection. | 1) Poor soldering of R91 (or disconnection) |
| | Inferior TTL flash output<br>Adjustment by personal computer is impossible. | 1) Defective SQ-I/F |
| | Inferior TTL flash output<br>The stop signal is kept output. | 1) Defective SQ-I/F |

# * Precautions: Defective AF Operations

Grasp the cause of trouble exactly from the following cases before you start troubleshooting.

Phenomenon:

a) If the exposure mode is not set to "P" or "S" --> Inferior AF lens communication
b) If Focus Aid not is not turned ON --> AF failure
c) Cases other than a) and b) described above --> The AF lens does not function.

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| AF lens-related malfunction<br><br>AF calculation and display are normal. (Focus aid functions normally.) | AF lens drive is not initiated. The ammeter indicates a little current flow. | 1) Poor soldering of AF motor wire. (or disconnection)<br>2) Defective motor driver |
| | Abnormal AF lens drive. AF lens is driven a little. | 1) Poor soldering of AF PI wire (poor wiring)<br>2) Poor soldering of AF PI wire (short-circuited with GND)<br>3) Poor soldering of R93 (or disconnection)<br>4) Defective AF PI |
| | When no AF lens is mounted, AF lens drive coupling gear rotates when the shutter pre-release switch is turned ON. | 1) AF-MCU is short-circuited between [45] and [46]. |
| | AF lens is driven in one direction (∞->near, ∞<-near). | 1) Defective AF motor driver |
| | AF lens drive is intermittent.(Hunting) | 1) Contamination on CCD |
| Malfunction of communication with AF lens<br><br>AF calculation and display are normal. (Focus aid functions normally.) | Inferior communication with AF lens | 1) Break in lens contact point FPC R/W wire |
| | Inferior communication with AF lens. Voltage is not output at the lens contact points. | 1) Poor press contact between main FPC and lens contact point FPC |
| | Inferior communication with AF lens. Aperture value "F--" only is displayed on the LCD panel. | 1) Poor soldering of AF contact point FPC and GND wire (or disconnection)<br>2) Poor soldering of lens contact point (disconnection or short-circuit) |

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| Malfunction of AF | Inferior CCD output | 1) Poor soldering of AF FPC wire (orange) (or disconnection)<br>2) Poor soldering of DC-DC converter (power FPC) [12] (or disconnection)<br>3) Poor press contact of AF FPC and main FPC |
| | No CCD output (B) | 1) Poor soldering of AF-I/F [6] (or disconnection)<br>2) Defective C7 and poor soldering of C7 (or disconnection)<br>3) Poor press contact between AF FPC and main FPC |
| | Defective X ber P (AB balance) | 1) Contamination on the CCD<br>2) Contamination inside the CCD (Replace AF FPC.) |
| | Focusing is impossible. The AF lens continues a reciprocating drive (∞<——> near). CCD output cannot be inspected by personal computer. (Overflow) | 1) Poor soldering of white wire (on the main FPC, TP-ACPU 26) (or disconnection) |
| | Focusing is impossible. AF lens operation is unstable. | 1) Poor soldering of red wire (WL-Vcc 2: lower part of remote terminal) (or disconnection)<br>2) Contamination on the CCD |
| | Inferior AF accuracy | 1) Address 2 of EEPROM is other than 0, 1, 254 or 255. Accuracy readjustment is required. |
| | Focusing display is not output. Focus aid is impossible. | 1) Address 1 of EEPROM is other than 130. |
| | Without AF-S focusing, the shutter can be released.<br>Main SW OFF=0.7 mA, Main SW ON=62 mA | 1) Defective SQ-I/F |

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| Inferior aperture control | Aperture control is disabled. | 1) Poor soldering of R28 (or disconnection)<br>2) Poor soldering of FM PI wire<br>3) SQ-I/F is short-circuited between [29] and [30].<br>4) Defective Mg-related parts<br>5) Aperture counter disk spring has come off. |
| Inferior easy loading | Easy loading is disabled. | 1) Poor press contact between main FPC and power FPC<br>2) Disconnection of wired film advance motor wire.<br>3) Poor wiring of film advance motor wire<br>4) Foreign material has been mixed in the bottom base plate.<br>5) Poor soldering of Q104 (power supply FPC) (or disconnection)<br>6) Poor soldering of R4 (back cover switch line) (or disconnection)<br>7) Inferior attachment of back cover switch |
| Malfunction of film advance | After the shutter is released, Three or four frames are always advanced (idle feed only). | 1) Poor soldering of R1 (or disconnection)<br>2) Defective reference switch |
| | The shutter cannot be released. Three or four frames are always advanced (idle feed only). | 1) The film detection switch cannot be turned ON.<br>2) The washer under the back door film press plate is missing. |
| | Film cannot be fed. | 1) Break in film advance motor reduction gear A |
| | Incorrect position of perforations. | 1) Replace the reference gear with a new one.<br>2) Advance the reference gear by 1.5 teeth to shift it clockwise. |

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| Malfunction of film rewinding | Rewinding is disabled. | 1) Poor soldering of film advance motor wire (poor wiring)<br>2) Poor press contact (contamination, shift) between main FPC and power supply FPC<br>3) Solenoid and film advance motor wires are short-circuited.<br>4) Break in wire between S101 (power FPC) and SQ-I/F [10]<br>5) Defective Q101 (power FPC) |
| Malfunction of communication with MF-21 | Inferior communication with MF-21 | 1) The DB-HS line and DB-SIO line of DB, DX FPC are short-circuited. ?<br>2) Poor soldering of SQ-I/F [67] (or disconnection) |
| | With the MF-21 mounted, the shutter cannot be released. | 1) Poor soldering of SQ-I/F [60] (or disconnection)<br>2) Poor soldering between SQ-I/F [55] and [58] (or disconnection)<br>3) Poor soldering of SQ-I/F [59] and [60].(or short-circuit)<br>4) Poor soldering of SQ-I/F [21] (or disconnection) |
| Inferior communication with SB-24 | Inferior communication with SB-24 | 1) Poor soldering of SQ-I/F [56], [60], [61], [63] and [65] (or disconnection)<br>2) SQ-I/F is short-circuited between [60] and [61].<br>3) Poor soldering of SQ-MCU [22] (or disconnection)<br>4) SI/O and Vcc lines of DB, DX FPC are short-circuited.<br>5) Poor soldering of top cover hot-shoe section (disconnection or short-circuit) |
| | Inferior communication with SB-24. The aperture display on the SB side blinks. The shutter pre-release timer switch cannot be turned OFF. | 1) Defective SQ-I/F<br>2) Poor soldering of SQ-I/F [56] (or disconnection) |

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| Switch-related failure | The AE lock switch is not turned ON. | 1) Incorrect position of top cover FPC attachment |
| | The depth-of-field preview switch is not turned ON. | 1) Poor soldering of depth-of-field preview switch (or disconnection) |
| | The mode switch is not turned ON. | 1) Poor press contact between top cover FPC and main FPC |
| | Lens release switch (AF and A/M change-over switch remains ON) | 1) Poor soldering of R40 of AF-MCU [52] line (or disconnection) |
| | The film detection switch is not turned OFF. | 1) Film detection switch wire is trapped. |
| | The display does not change by turning the command dial. | 1) Poor soldering of Vcc wire (pink) to the top cover FPC |
| | The reference switch remains ON. | 1) The reference switch (green) wire is caught in. |
| | The rear curtain switch is not turned OFF. | 1) The rear curtain switch wire is caught in. (short-circuited) |
| Other failures | Data cannot be written on EEPROM. | 1) AF-MCU is short-circuited between [40], [41] and [42]. |
| | Data in addresses 15 and 17 are not correct. | 1) Poor soldering of R53 (or disconnection) |
| | Malfunction of AF and AE.<br>Data on EEPROM is rewritten when using the MF-21 | 1) Defective SQ-MCU |
| | Frame eclipse (at 1/8000-1/30) | 1) Defective shutter |
| | Shutter speeds faster than 1/250 second cannot be set. | 1) Poor soldering of SQ-I/F [68] (or disconnection)<br>2) Defective top cover FPC (Inferior output of Ready terminals) |
| | Incorrect battery level check | 1) Poor soldering of R32 and R33 (or disconnection) |
| | The shutter speed remains at B (bulb). | 1) SQ-I/F is short-circuited between [19] and [20]. |
| | When the battery release switch is set ON and OFF, the film advance motor rotates. | 1) AF FPC and power FPC are short-circuited. |

| | Phenomenon | Cause |
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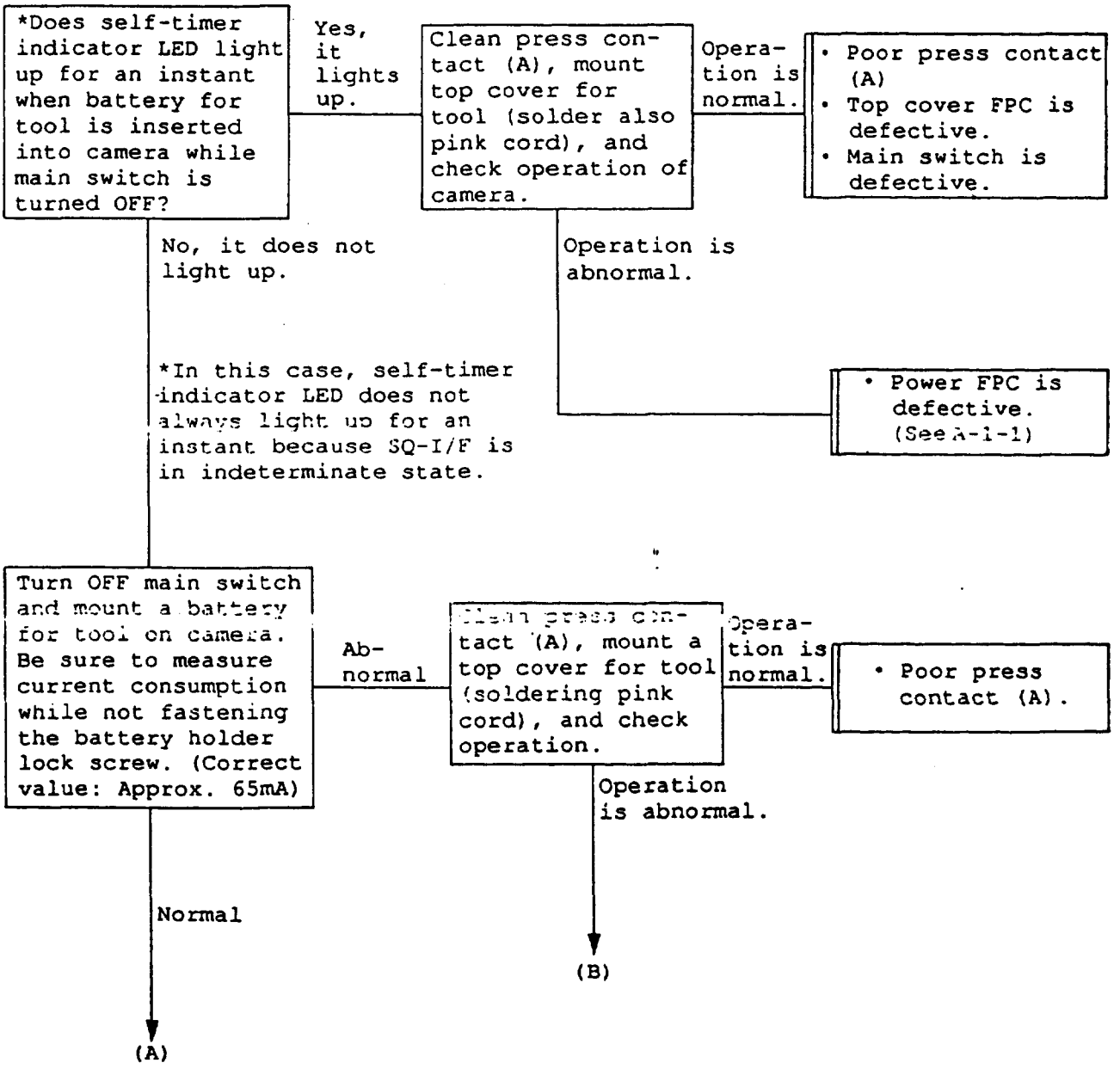
| A-1 | Display does not appear when main switch is turned ON.<br><br>No other operations function. | • Poor press contact (A). Dust is present on press contacts.<br>• There is short-circuit between cord (white) of battery holder release switch and bottom cover due to pinch of cord.<br>• There is short-circuit in battery holder release switch.<br>• Power FPC is defective.<br>• Main FPC is defective.<br>• Top cover FPC is defective.<br>• Oscillator is defective. |


*Does self-timer indicator LED light up for an instant when battery for tool is inserted into camera while main switch is turned OFF?
Yes, it lights up.
Clean press contact (A), mount top cover for tool (solder also pink cord), and check operation of camera.
Operation is normal.
• Poor press contact (A)
• Top cover FPC is defective.
• Main switch is defective.
No, it does not light up.
Operation is abnormal.
• Power FPC is defective. (See A-1-1)
*In this case, self-timer indicator LED does not always light up for an instant because SQ-I/F is in indeterminate state.
Turn OFF main switch and mount a battery for tool on camera. Be sure to measure current consumption while not fastening the battery holder lock screw. (Correct value: Approx. 65mA)
Abnormal
Clean press contact (A), mount a top cover for tool (soldering pink cord), and check operation.
Operation is normal.
• Poor press contact (A).
Operation is abnormal.
Normal
(B)
(A)

(A)

Turn OFF main switch and mount a battery for tool on camera. Measure current consumption after fastening the battery holder lock screw. (Correct value: Approx. 9μA)

Abnormal

- Short-circuit of battery holder release switch or white cord.
- Main FPC is defective. (See A-1-3)

Normal

Clean press contact (A), mount a top cover for tool (soldering pink cord), and check operations.

Operation is abnormal.

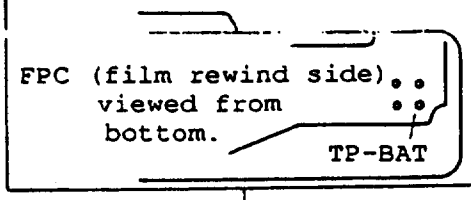
- Main FPC is defective. (See A-1-4)

Operation is normal.

- Poor press contact (A).
- Top cover FPC is defective.
- Main switch is defective.

(B)

Remove bottom cover and measure voltage of TP-BAT. (Correct value: Approx. 6V)




Abnormal

- Poor battery contacts
- Disconnection or poor soldering of cords between battery contacts and power FPC.

Normal

- Main FPC or power FPC is defective. (See A-1-2)

**EXPLANATION**

Starting up of power supply and camera:

VBAT: 6V power supply (AA-type penlight battery x 4) for circuits such as motors, Mgs, and LEDs.

VDD: Approx. 4.8V power supply (2-step lower voltage than VBAT due to resisters and diodes) supplied when shutter prerelease timer is OFF.
Approx. 4.6V power supply (1-step lower voltage than VCC due to Schottky diode) supplied when shutter prerelease timer is ON.
VDD supplies power to digital circuits such as LCD-Dr, MCU.

VCC: Approx.5.25V power supply supplied from DC-DC converter when shutter prerelease switch is ON for analog circuits such as metering and focusing operations.

12V: Approx.12V power supply supplied from DC-DC converter when shutter prerelease switch is ON for CCD driver circuit.

VBAT and VDD powers are always supplied to circuits when battery holder is mounted whether main switch is ON or OFF.
VCC power is supplied from DC-DC converter only when shutter prerelease switch is turned ON. Therefore, the main switch is not a general power switch but it is just a kind of switch used to recognize its state.

Camera does not operate at all if battery holder is mounted on camera without fastening lock screw (or battery holder release switch is ON), because all systems (SQ-I/F, SQ-MCU, AF-MCU) in camera are in the state of being reset. But, SQ-I/F reset terminal becomes L level when battery holder lock screw is fastened, and SQ-I/F is designed to change the voltage of RC terminal of DC-DC converter (in reset state) to L (low) level to activate the DC-DC converter, to output VCC power and to start the oscillator.

Self-timer indicator LED lights up for an instant when a battery holder is mounted without fastening lock screw, this means that camera operates properly. But the LED may not light up depending on the state of the SQ-MCU.

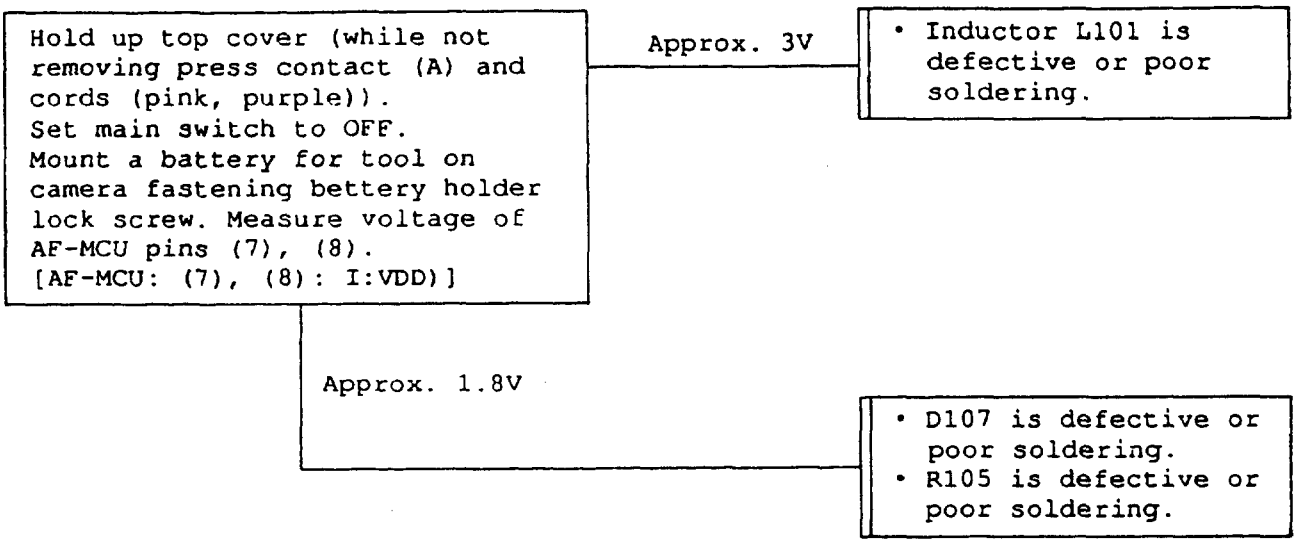
Next, mount the battery holder on the camera and fasten the lock screw correctly, the battery holder release switch is changed from ON to OFF.

[SQ-I/F: (17): O: Power on reset AF-MCU] changes [AF-MCU: (1): I: Reset] to H (high) level enabling AF-MCU to execute program. In the beginning of the program, [AF-MCU: (46): O: Resetting SQ-MCU] retains [SQ-MCU: (41): I: Reset] to L level enabling SQ-MCU to execute program.

AF-MCU makes [SQ-I/F: (7): O: Activating AF-MCU from sleep state] to change the level of [AF-MCU: (6): I: Waking up] from L to H, and changes the state from sleep to active state. (Active state means that ICs become ready to operate.)

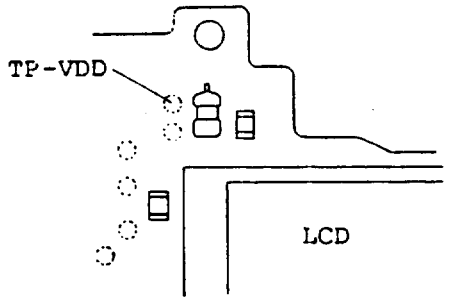
Following these two operations, the reset state of the whole system is released. And at the same time, DC-DC converter operation stops, and camera enters the wait state.

| A-1-1 | Power FPC | VDD power system is defective. |
|---|---|---|


Hold up top cover (while not removing press contact (A) and cords (pink, purple)).
Set main switch to OFF.
Mount a battery for tool on camera fastening bettery holder lock screw. Measure voltage of AF-MCU pins (7), (8).
[AF-MCU: (7), (8): I:VDD)]
Approx. 3V
• Inductor L101 is defective or poor soldering.
Approx. 1.8V
• D107 is defective or poor soldering.
• R105 is defective or poor soldering.

| A-1-2 | Main FPC, power FPC | Inspection of VCC output |
|---|---|---|

Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Set main switch to OFF. Mount a battery for tool on camera. Measure voltage of TP-VDD while not fully fastening the battery holder lock screw. Correct value: 4.5V.




Abnormal
- Power FPC is defective. (See A-1-1)

Normal

Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Set main switch to OFF. Arrange cords as mentioned on page 3. Mount a battery for tool on camera. Measure voltage of SQ-I/F: pin (33) while not fully fastening the battery holder lock screw.
Correct value: Approx. 0V. [SQ-I/F: (33): 0: RL (DC-DC converter control)]

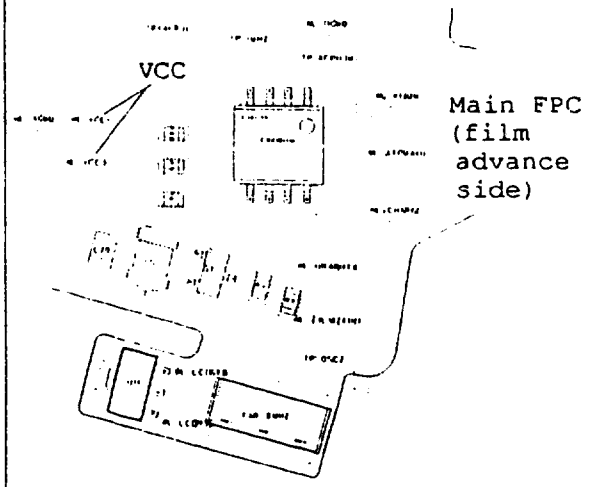
Abnormal
- Poor soldering of SQ-I/F (33)
- SQ-I/F is defective.

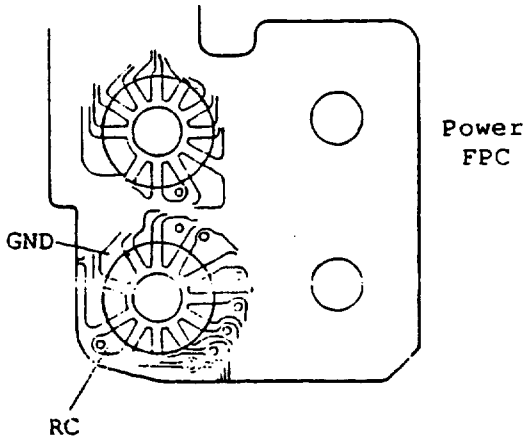
Normal

Remove top cover. Short-circuit between RC and GND of power FPC on press contact (A), and measure VCC output. (Correct value: 5.25V)

Abnormal

- Power FPC is defective.
- DC-DC converter is defective.

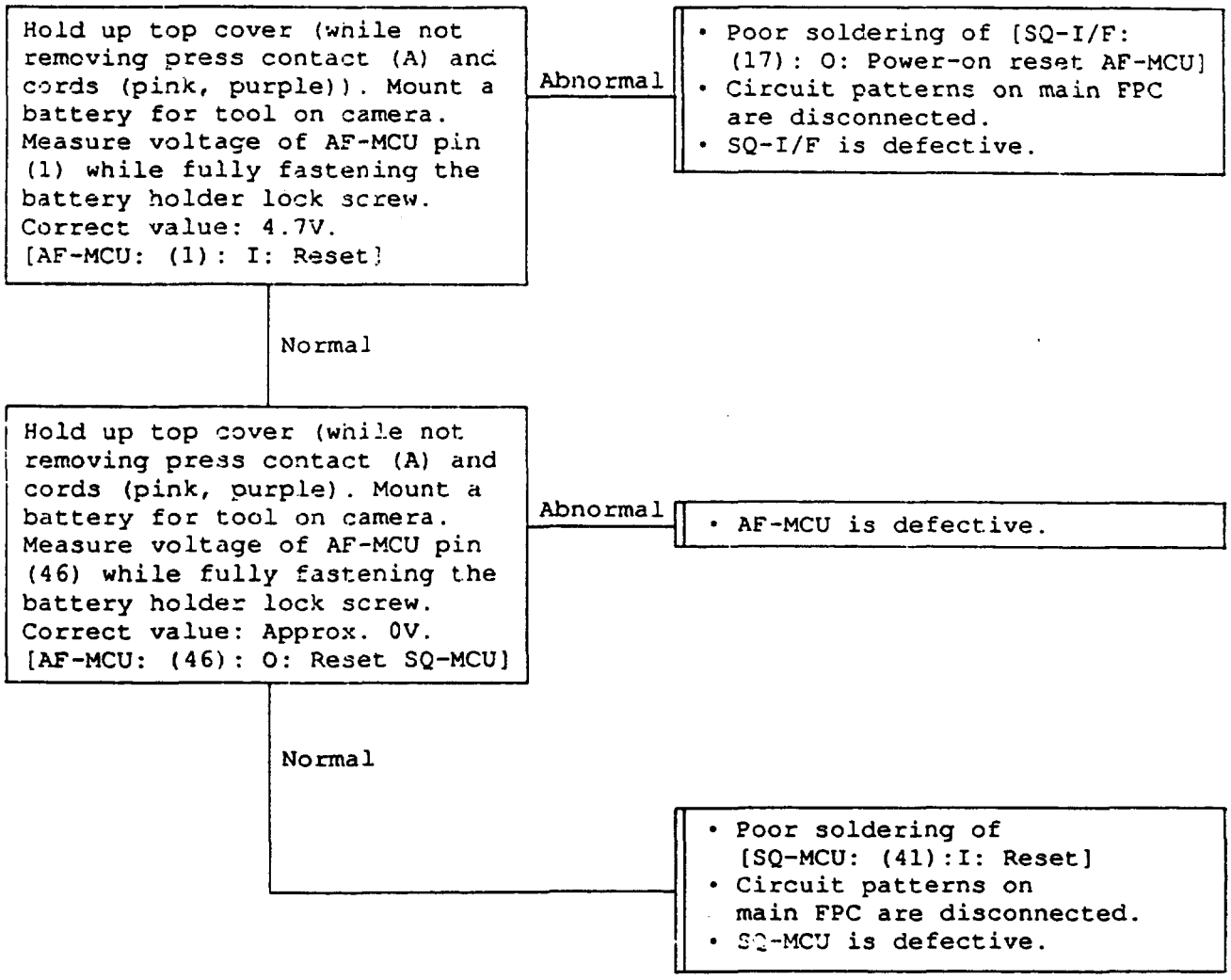


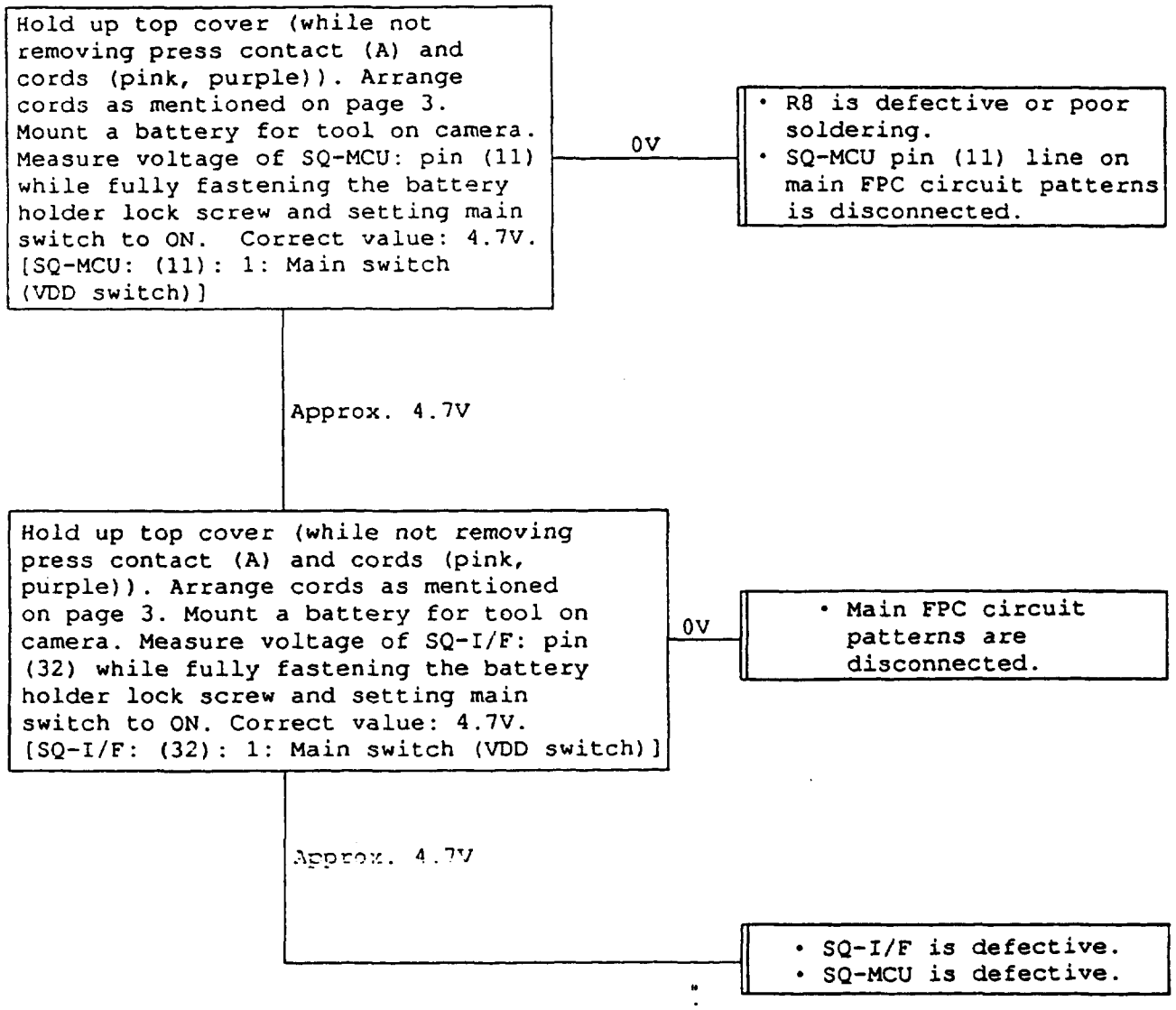

Normal

- SQ-I/F: pin (33) line on main FPC circuit patterns is disconnected.

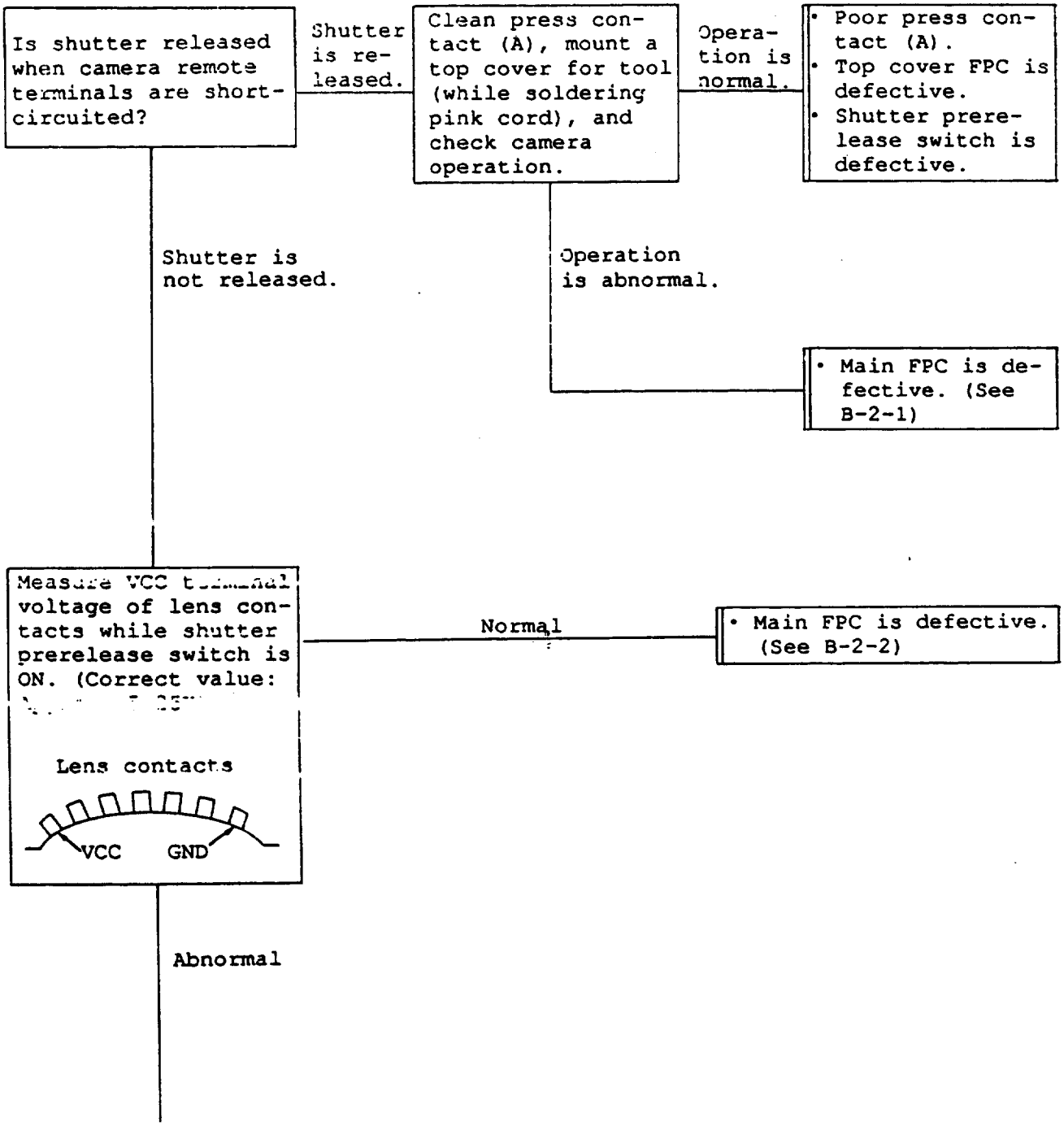
| A-1-3 | Main FPC | Inspection of CPU reset system |
|---|---|---|


Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Mount a battery for tool on camera. Measure voltage of AF-MCU pin (1) while fully fastening the battery holder lock screw. Correct value: 4.7V. [AF-MCU: (1): I: Reset]
Abnormal
• Poor soldering of [SQ-I/F: (17): O: Power-on reset AF-MCU]
• Circuit patterns on main FPC are disconnected.
• SQ-I/F is defective.
Normal
Hold up top cover (while not removing press contact (A) and cords (pink, purple). Mount a battery for tool on camera. Measure voltage of AF-MCU pin (46) while fully fastening the battery holder lock screw. Correct value: Approx. 0V. [AF-MCU: (46): O: Reset SQ-MCU]
Abnormal
• AF-MCU is defective.
Normal
• Poor soldering of [SQ-MCU: (41):I: Reset]
• Circuit patterns on main FPC are disconnected.
• SQ-MCU is defective.

| A-1-4 | Main FPC | Inspection of main switch (VDD SW) system |
|---|---|---|


Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Arrange cords as mentioned on page 3. Mount a battery for tool on camera. Measure voltage of SQ-MCU: pin (11) while fully fastening the battery holder lock screw and setting main switch to ON. Correct value: 4.7V. [SQ-MCU: (11): 1: Main switch (VDD switch)]
0V
• R8 is defective or poor soldering.
• SQ-MCU pin (11) line on main FPC circuit patterns is disconnected.
Approx. 4.7V
Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Arrange cords as mentioned on page 3. Mount a battery for tool on camera. Measure voltage of SQ-I/F: pin (32) while fully fastening the battery holder lock screw and setting main switch to ON. Correct value: 4.7V. [SQ-I/F: (32): 1: Main switch (VDD switch)]
0V
• Main FPC circuit patterns are disconnected.
Approx. 4.7V
• SQ-I/F is defective.
• SQ-MCU is defective.

| | Phenomenon | Cause |
|---|---|---|
| B-1 | Shutter prerelease switch is not turned ON. Specified modes are displayed on LCD panel when main switch is turned ON. Exposure mode settings are not displayed when shutter prerelease switch is ON and camera dos not operate. | • Poor contact of press contact (A). Dust is present on press contacts.<br>• Main FPC is defective.<br>• Power FPC is defective.<br>• Top cover FPC is defective.<br>• Oscillator is defective. |


Is shutter released when camera remote terminals are short-circuited?
Shutter is released.
Clean press contact (A), mount a top cover for tool (while soldering pink cord), and check camera operation.
Operation is normal.
• Poor press contact (A).
• Top cover FPC is defective.
• Shutter prerelease switch is defective.
Shutter is not released.
Operation is abnormal.
• Main FPC is defective. (See B-2-1)
Measure VCC terminal voltage of lens contacts while shutter prerelease switch is ON. (Correct value:
Normal
• Main FPC is defective. (See B-2-2)
Lens contacts
VCC
GND
Abnormal

Clean press contact (A), mount a top cover for tool (while soldering pink cord), and check camera operation.

Operation is normal.

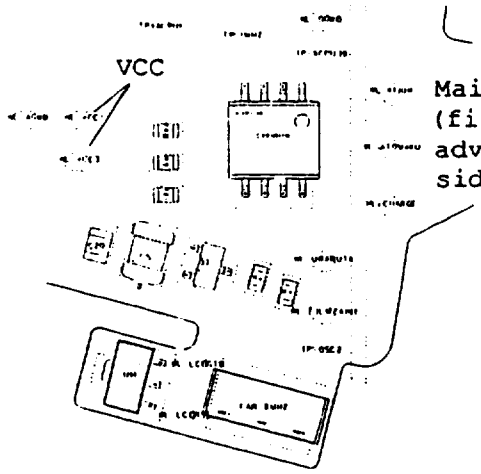
- Poor press contact (A)

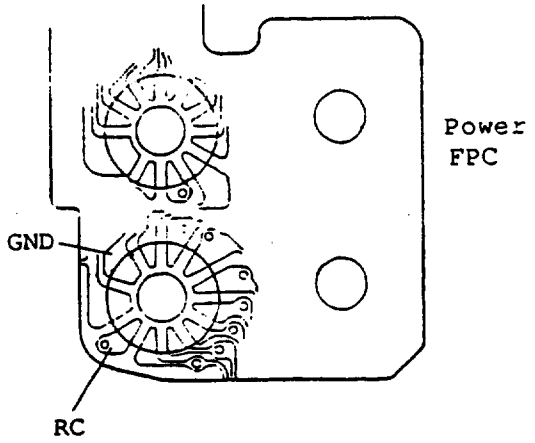
Operation is abnormal.

Remove top cover for tool. Short-circuit between RC and GND of power FPC on press contact (A) and Measure VCC output voltage.
Correct value of VCC: Approx. 5.25V.

Normal

- Main FPC is defective. (See B-2-1)




Abnormal

- Power FPC is defective.
- DC-DC converter is defective.

**EXPLANATION**

Starting shutter prerelease timer

VBAT power is supplied to driving circuits, DC-DC converter, SQ-I/F, and VDD power is supplied to SQ-I/F, SQ-MCU, AF-I/F, AF-MCU, LCD-Dr while shutter prerelease timer is OFF. Current consumption is approx. 10μA (leak current to LCD-Dr and others) when main switch is OFF because oscillation of each MCU does not generate oscillation. Current consumption is approx. 60μA (LCD-Dr and its surrounding circuits) when main switch is ON.

The ON/OFF operation of main switch while shutter prerelease timer is OFF means that [SQ-I/F: (16): 0: LCD-Dr mode control] simply changes the state of [LCD-Dr: (4): 1: SB] to H or L (or switching the state of LCD display to ON or OFF). This does not activate starting operation of SQ-MCU.

Shutter prerelease timer starts by activating the MCU (in the wait state). (That is, starting shutter prerelease timer implies that MCU starts to execute program.) When a shutter prerelease switch (each starting switch) is turned ON, the signal is sent to SQ-I/F.

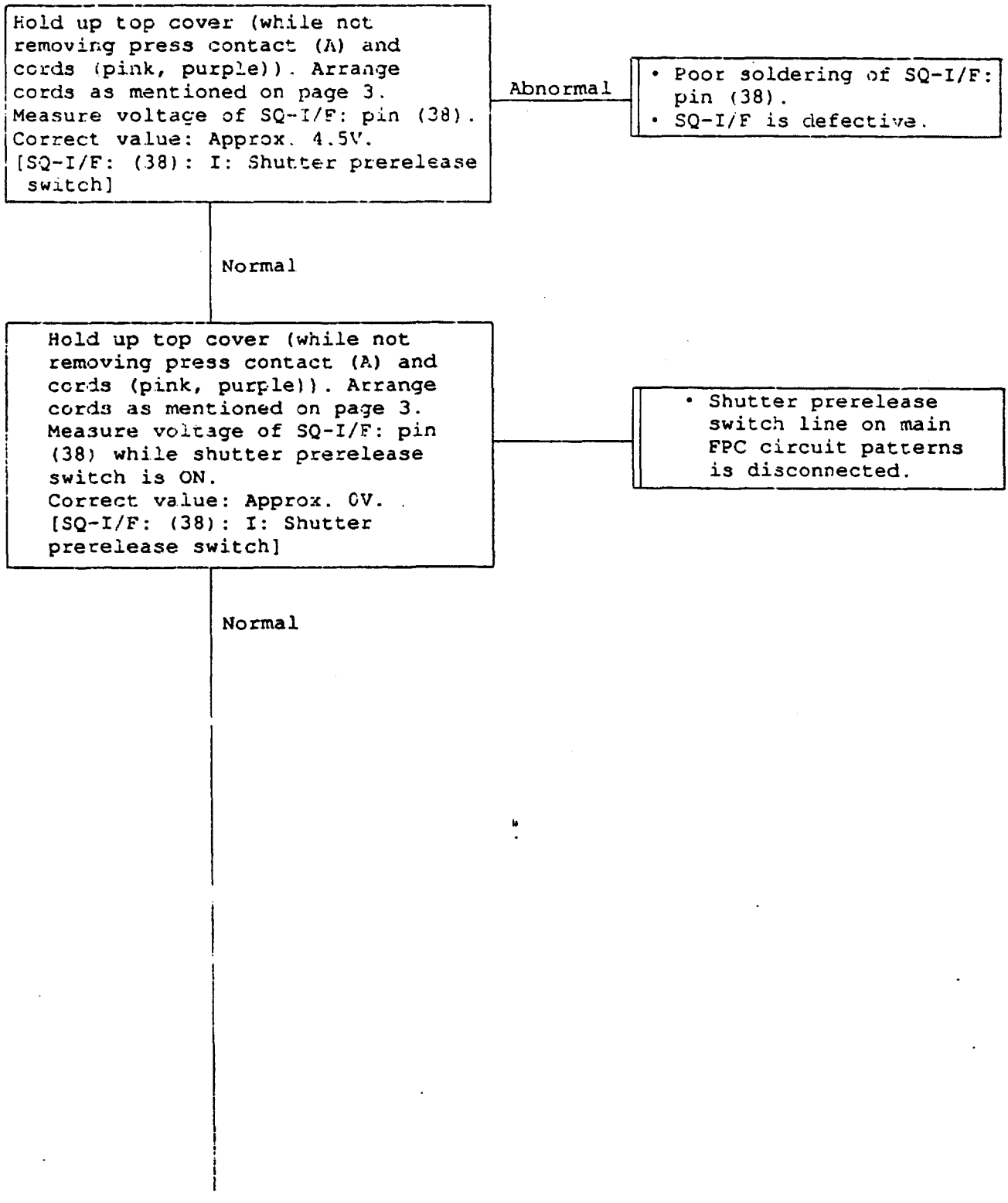
When [SQ-I/F: (33): O: RC (Controlling DC-DC converter)] changes [DC-DC converter: RC terminal] to L level, DC-DC converter is activated and VCC power is output, making it possible to start each oscillator. At the same time, [SQ-I/F: (7): O: Activating AF-MCU from sleep state] makes [AF-MCU: (6): I: Waking up] to retain L level for a specified time (H/L ⌐⌐
and activates AF-MCU (starting execute program.)

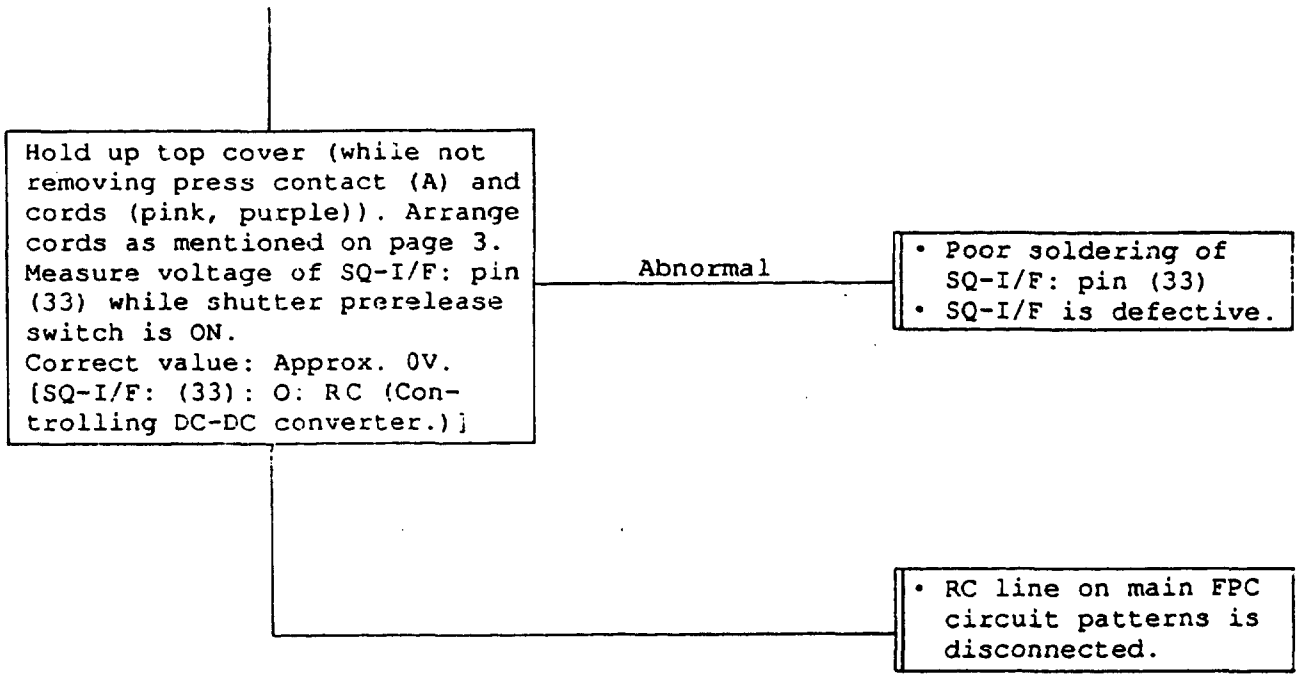
Following this, [AF-MCU: (46): O: Resetting SQ-MCU] changes [SQ-MCU: (41): I: Reset] to L level, and activates SQ-MCU (starting execute program.)

After having run communication between AF-MCU and SQ-MCU, a signal is output from [AF-MCU: (42): O: DC-DC control signal] to [SQ-I/F: (34): I: RC signal] to maintain DC-DC converter output.
About battery check
While DC-DC converter is being activated (or VCC is output), battery voltage (VBAT) which is divided into one half is applied to [AF-MCU: (32): I: VBAT (Analog input)] to carry out A/D conversion.

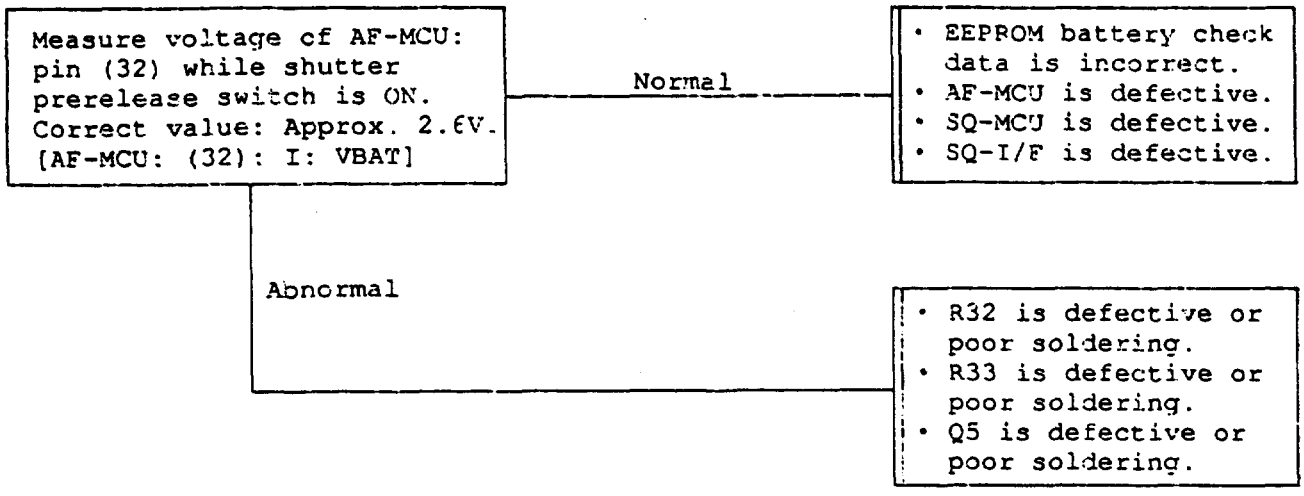
In the AF-MCU, battery check is carried out by comparing three data (level) written in EEPROM and above mentioned A/D converted data while DC-DC converter is activated (or shutter prerelease timer is ON, shutter is released).

| B-1-1 | Main FPC | Inspection of Shutter prerelease system or RC (DC-DC converter control) system |
|---|---|---|

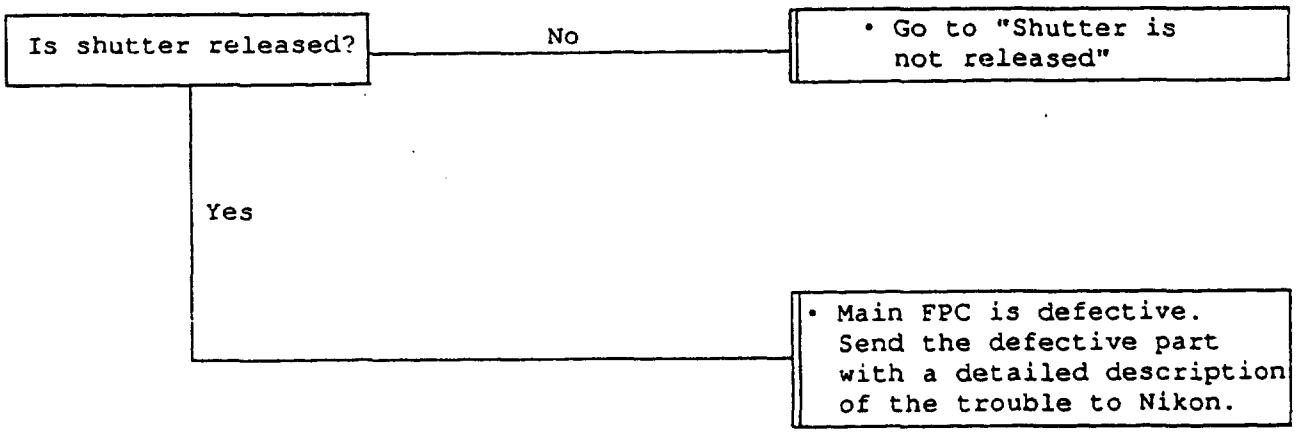

Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Arrange cords as mentioned on page 3.
Measure voltage of SQ-I/F: pin (38).
Correct value: Approx. 4.5V.
[SQ-I/F: (38): I: Shutter prerelease switch]
Abnormal
• Poor soldering of SQ-I/F: pin (38).
• SQ-I/F is defective.
Normal
Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Arrange cords as mentioned on page 3.
Measure voltage of SQ-I/F: pin (38) while shutter prerelease switch is ON.
Correct value: Approx. 0V.
[SQ-I/F: (38): I: Shutter prerelease switch]
• Shutter prerelease switch line on main FPC circuit patterns is disconnected.
Normal


Hold up top cover (while not removing press contact (A) and cords (pink, purple)). Arrange cords as mentioned on page 3. Measure voltage of SQ-I/F: pin (33) while shutter prerelease switch is ON.
Correct value: Approx. 0V.
[SQ-I/F: (33): O: RC (Controlling DC-DC converter.)]
Abnormal
• Poor soldering of SQ-I/F: pin (33)
• SQ-I/F is defective.
• RC line on main FPC circuit patterns is disconnected.

| B-1-2 | Main FPC | Inspection of battery check system |
|---|---|---|


Measure voltage of AF-MCU: pin (32) while shutter prerelease switch is ON.
Correct value: Approx. 2.6V.
[AF-MCU: (32): I: VBAT]
Normal
• EEPROM battery check data is incorrect.
• AF-MCU is defective.
• SQ-MCU is defective.
• SQ-I/F is defective.
Abnormal
• R32 is defective or poor soldering.
• R33 is defective or poor soldering.
• Q5 is defective or poor soldering.

| | Phenomenon | Cause |
|---|---|---|
| B-2 | Shutter prerelease switch is not turned OFF | • Main switch is defective. |


Is shutter released?
No
• Go to "Shutter is not released"
Yes
• Main FPC is defective. Send the defective part with a detailed description of the trouble to Nikon.

**EXPLANATION**

Completion of shutter prerelease timer

(1) In eight seconds after shutter prerelease timer is started or the final data setting operation is completed*.
(2) In two seconds with no operation after shutter is released. (In eight seconds when film is not loaded.)
(3) Immediately after the final data setting operation is completed when battery check voltage is lower than the 1st level.
(4) Main switch is OFF.

When the built-in microcomputer detects either one of above four items, the circuit operation to terminate the shutter prerelease timer operation is all carried out by commands of the microcomputer software.
By either one of above conditions, the SQ-MCU detects the timing to turn OFF power. SQ-MCU will write data (displayed on LCD panel when shutter prerelease timer is OFF) and specified data to be saved in EEPROM.

Then, SQ-MCU sends a command to AF-MCU to turn DC-DC converter OFF and enter to the wait state.
At the same time, SQ-MCU sends a command to SQ-I/F to turn DC-DC converter OFF (after doing communication to turn OFF power of flash when SB-24 is mounted) and enter to the wait state.

*Data setting operation:

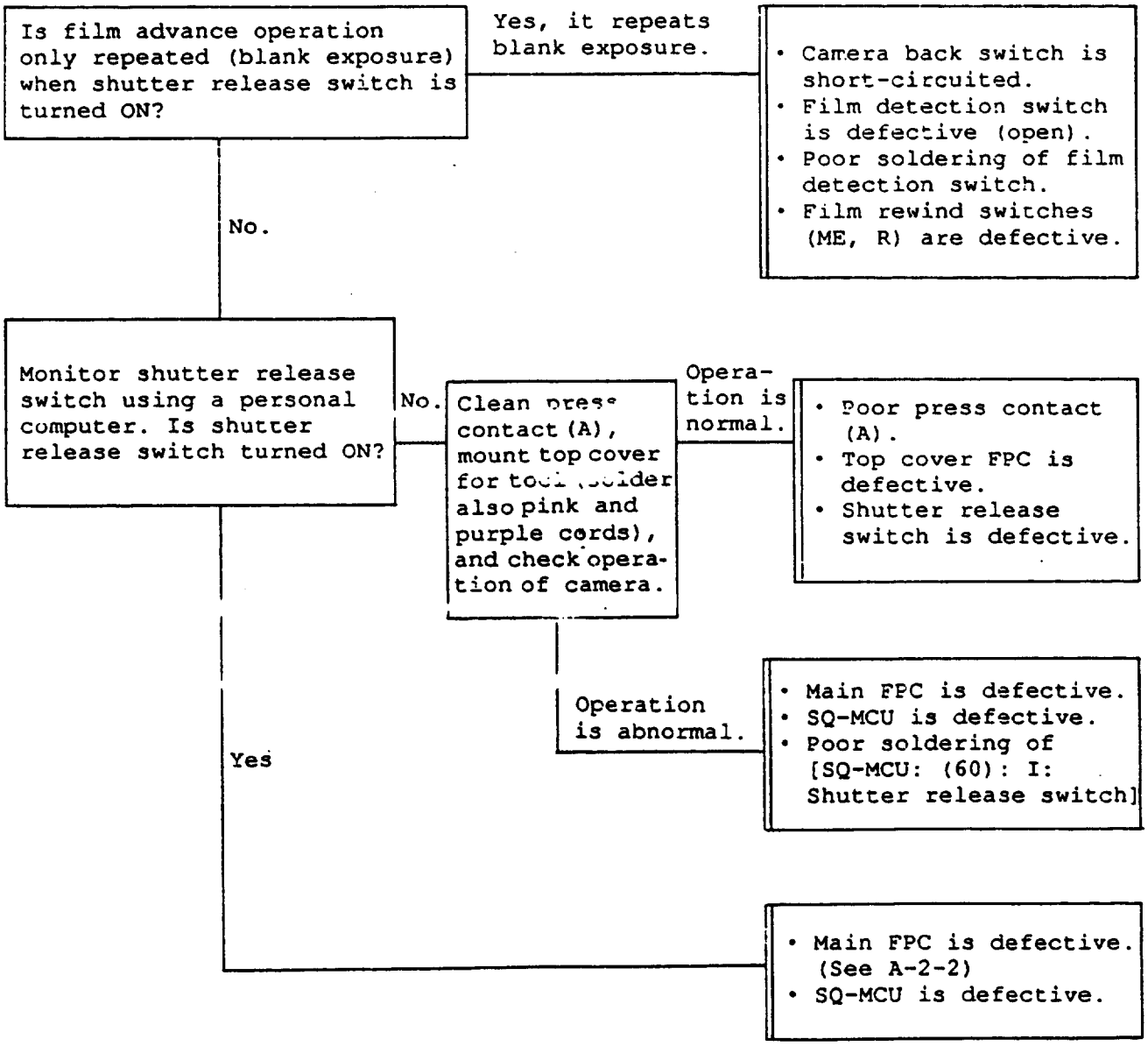
- Operation of all buttons and levers
- Operation of command dial
- Operation of lens aperture ring
- Operation of flash (power extension flag)
- Operation of data back (power hold request flag)

| | Phenomenon | Cause |
|---|---|---|
| B-3 | Shutter prerelease switch is not turned OFF.<br>LCD display does not change.<br>Shutter can not be released.<br>LCD display does not go out even when main switch is turned OFF. | Replace IC (SQ-MCU) or main FPC with correct repair parts. For further details, see Nikon Technical Information bulletin. |

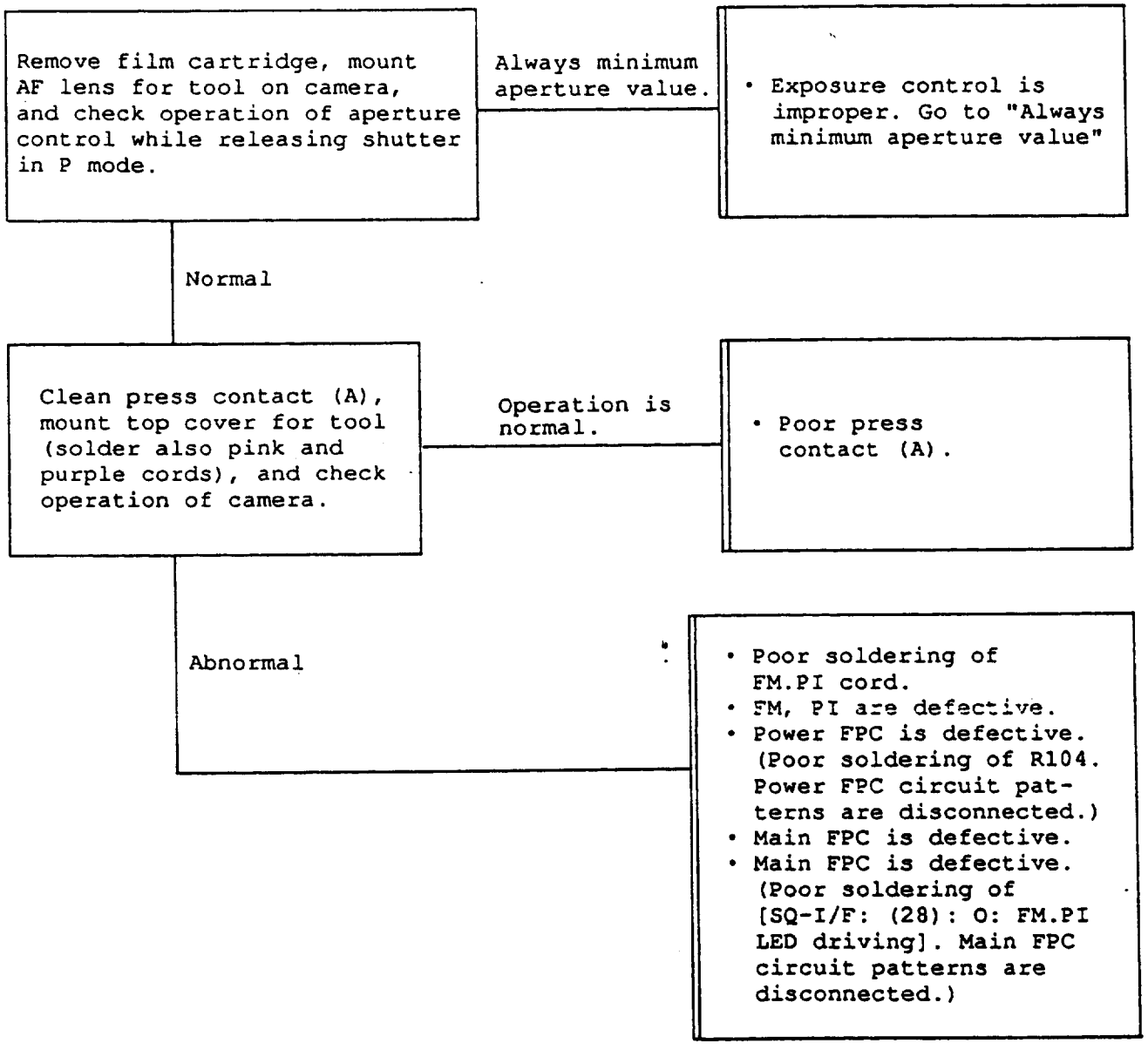
| | Phenomenon | Cause |
|---|---|---|
| B-4 | Shutter is released with shutter prerelease operation | There is short-circuit between shutter prerelease switch and shutter release switch. |

| | Phenomenon | Cause |
|---|---|---|
| B-5 | Shutter operation does not hold for 8 seconds. | Data is incorrect in EEPROM (address 22) |

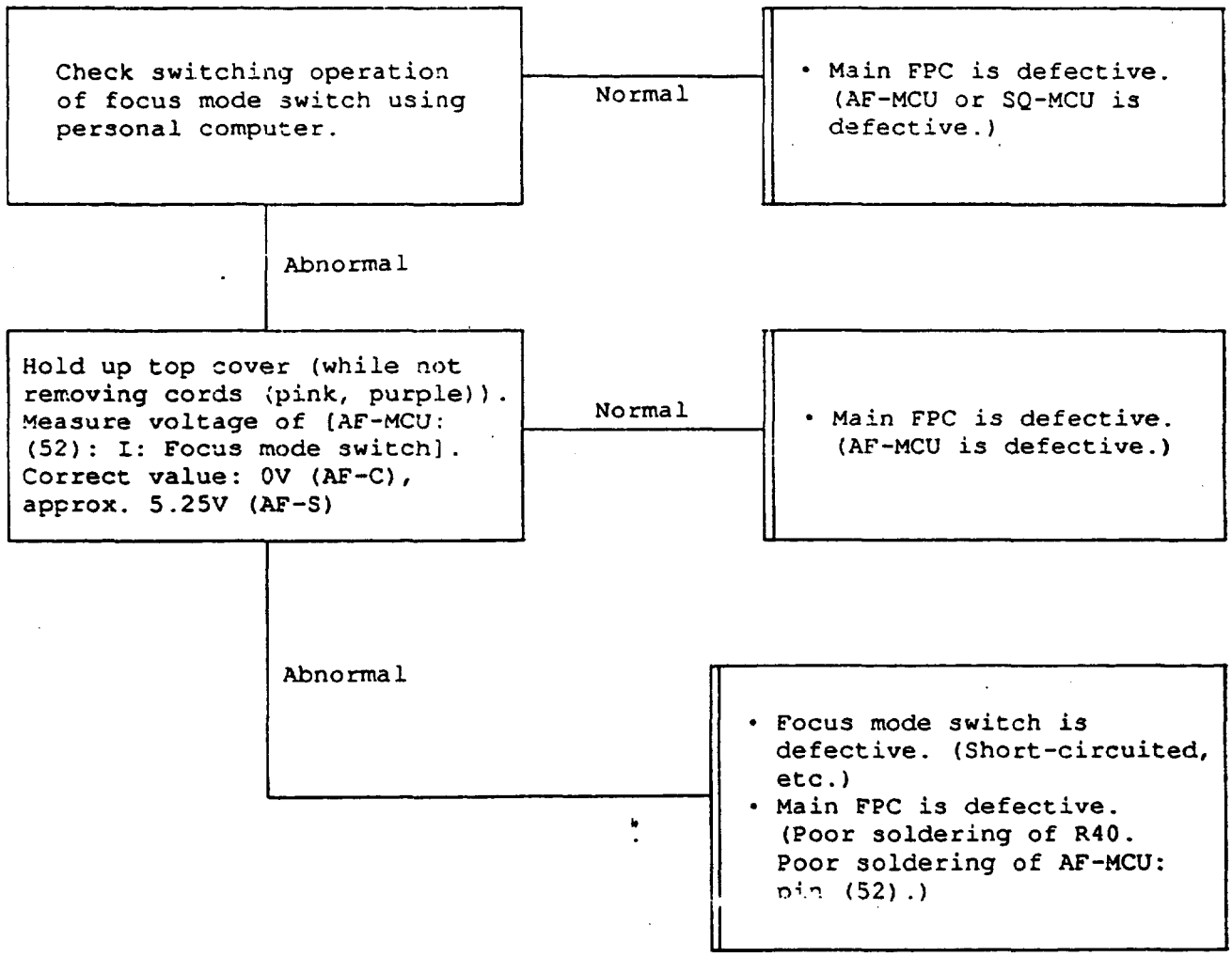
| | Phenomenon | Cause |
|---|---|---|
| C-1 | Shutter can not be released when film is not loaded and camera back is closed. | • Camera back switch is short-circuited.<br>• Film detection switch is open.<br>• Poor press contact (A)<br>• Top cover FPC is defective.<br>• Shutter release switch is defective<br>• Shutter release switch is defective<br>• Main FPC is defective. |


Is film advance operation only repeated (blank exposure) when shutter release switch is turned ON?
Yes, it repeats blank exposure.
• Camera back switch is short-circuited.
• Film detection switch is defective (open).
• Poor soldering of film detection switch.
• Film rewind switches (ME, R) are defective.
No.
Monitor shutter release switch using a personal computer. Is shutter release switch turned ON?
No.
Clean press contact (A), mount top cover for tool (solder also pink and purple cords), and check operation of camera.
Operation is normal.
• Poor press contact (A).
• Top cover FPC is defective.
• Shutter release switch is defective.
Operation is abnormal.
• Main FPC is defective.
• SQ-MCU is defective.
• Poor soldering of [SQ-MCU: (60): I: Shutter release switch]
Yes
• Main FPC is defective. (See A-2-2)
• SQ-MCU is defective.

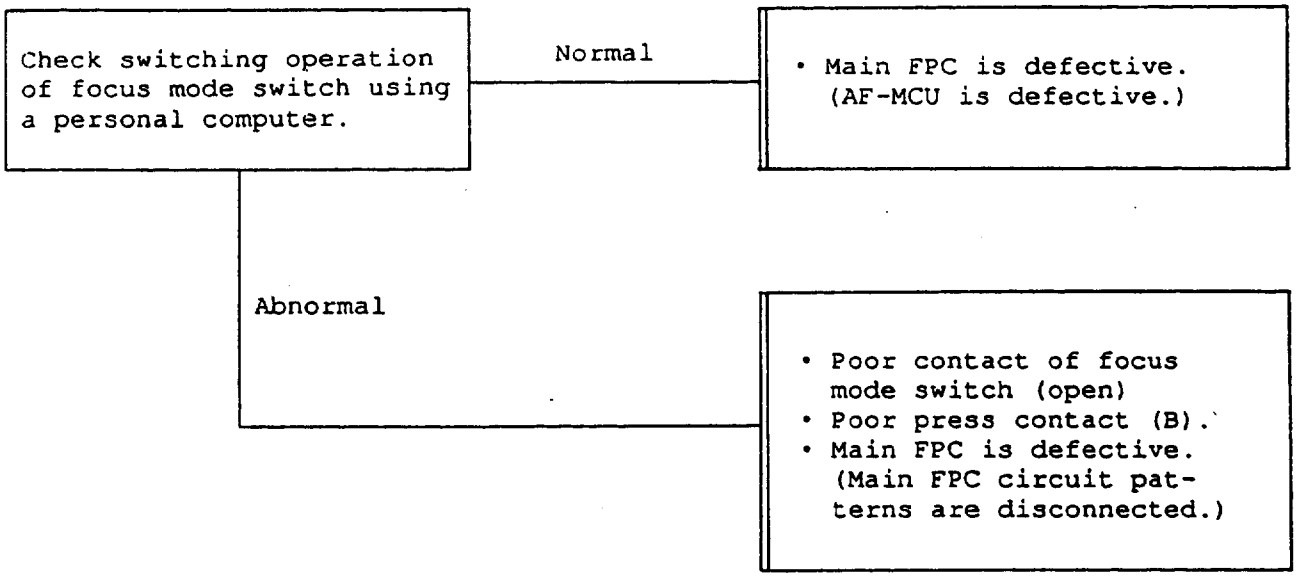
| | Phenomenon | Cause |
|---|---|---|
| C-2 | Shutter cannot be released when film is loaded and camera back is closed. | • Poor press contact (A).<br>• Poor soldering of FM.PI cord.<br>• Main FPC is defective. |


Remove film cartridge, mount AF lens for tool on camera, and check operation of aperture control while releasing shutter in P mode.
Always minimum aperture value.
• Exposure control is improper. Go to "Always minimum aperture value"
Normal
Clean press contact (A), mount top cover for tool (solder also pink and purple cords), and check operation of camera.
Operation is normal.
• Poor press contact (A).
Abnormal
• Poor soldering of FM.PI cord.
• FM, PI are defective.
• Power FPC is defective. (Poor soldering of R104. Power FPC circuit patterns are disconnected.)
• Main FPC is defective.
• Main FPC is defective. (Poor soldering of [SQ-I/F: (28): O: FM.PI LED driving]. Main FPC circuit patterns are disconnected.)

| | Phenomenon | Cause |
|---|---|---|
| C-3 | Camera operates as AF-C mode though it is set to AF-S mode. (Shutter can be released in out of focus mode) | • Main FPC is defective.<br>• Focus mode switch is short-circuited. |


Check switching operation of focus mode switch using personal computer.
Normal
• Main FPC is defective. (AF-MCU or SQ-MCU is defective.)
Abnormal
Hold up top cover (while not removing cords (pink, purple)). Measure voltage of [AF-MCU: (52): I: Focus mode switch]. Correct value: 0V (AF-C), approx. 5.25V (AF-S)
Normal
• Main FPC is defective. (AF-MCU is defective.)
Abnormal
• Focus mode switch is defective. (Short-circuited, etc.)
• Main FPC is defective. (Poor soldering of R40. Poor soldering of AF-MCU: pin (52).)

| | Phenomenon | Cause |
|---|---|---|
| C-4 | Camera operates as AF-S mode though it is set to AF-C mode. (Shutter can not be released unless in focus.) | • Focus mode switch is defective.<br>• Poor press contact (B).<br>• Main FPC is defective. |


Check switching operation of focus mode switch using a personal computer.
Normal
• Main FPC is defective. (AF-MCU is defective.)
Abnormal
• Poor contact of focus mode switch (open)
• Poor press contact (B).
• Main FPC is defective. (Main FPC circuit patterns are disconnected.)

| | Phenomenon | Cause |
|---|---|---|
| D-1 | Malfunction of focus aid. (Focus indicators do not appear) | • Poor press contact (C).<br>• Main FPC is defective.<br>• Power FPC is defective.<br>• AF sensor is defective.<br>• Customer's lens is defective. |

Mount AF lens for tool on camera, and check LCD displays of focus indicators and exposure mode (P mode).

Normal → • Customer's lens is defective.

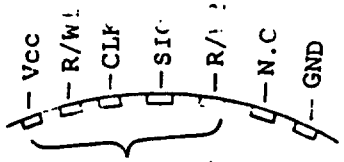
Abnormal

Remove bottom cover, and measure voltage of orange cord (12V for supplying power to CCD).
Correct value: 12V.

0V → • Power FPC is defective. (Poor soldering of DC-DC converter pin (12). DC-DC converter is defective.)

12V

Measure voltage of each lens contact while shutter prerelease switch is ON.



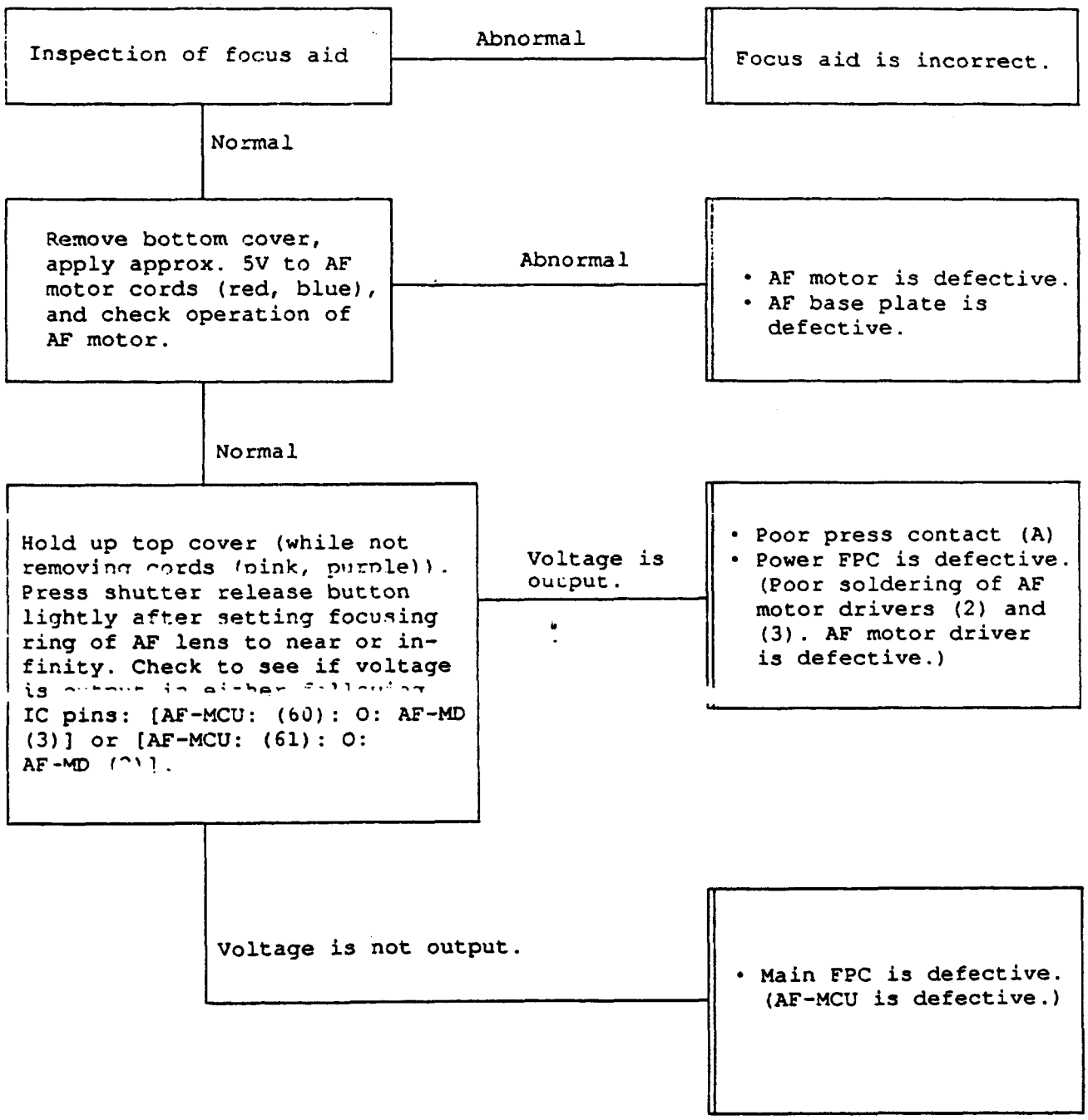

Correct value:5V

Normal →
- Main FPC is defective. (Poor soldering of [AF-MCU: (13), (14), (15), (16), (43), (45): lens contact terminals]. AF-MCU is defective. Poor soldering of [AF-I/F: (22)-(29): Latch input]. AF-I/F is defective.)
- AF sensor is defective.

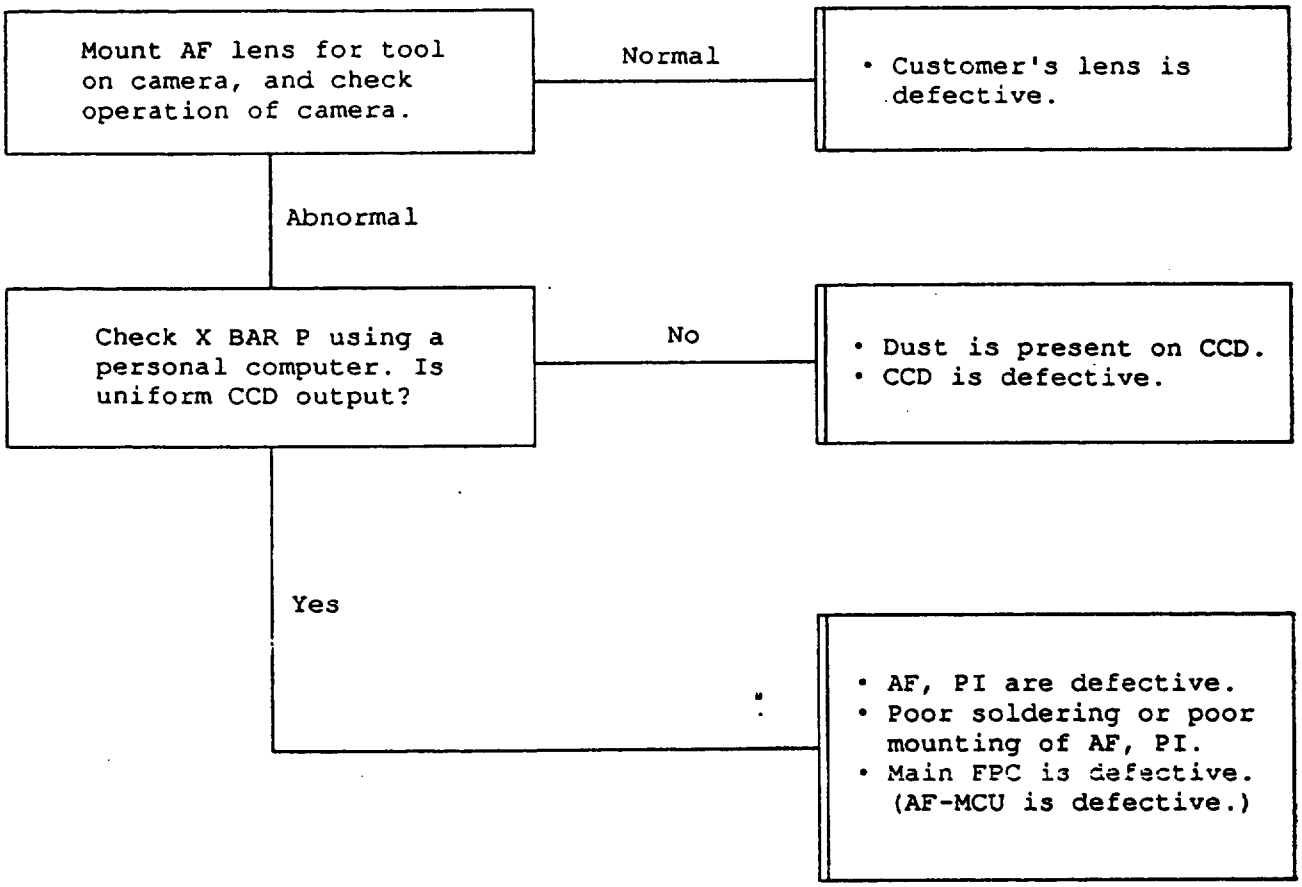
Abnormal

- Poor press contact (C)
- Main FPC is defective. (Poor soldering of R62-65. Main FPC circuit patterns are disconnected.)
- Lens contact FPC circuit patterns are disconnected.

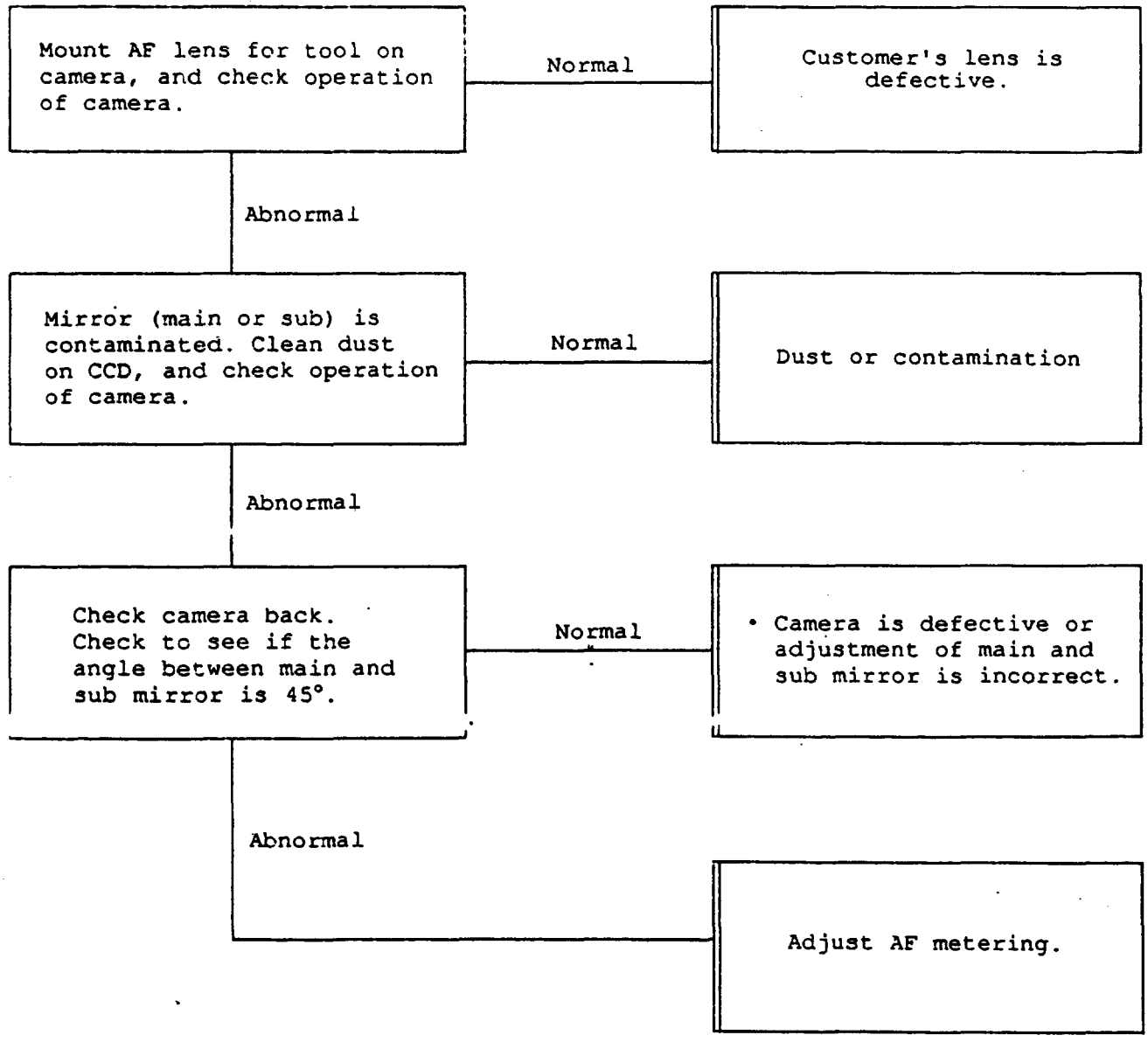
| | Phenomenon | Cause |
|---|---|---|
| D-2 | Malfunction of AF servo operation | • Poor press contact (A)<br>• AF motor or AF base plate is defective.<br>• Main FPC is defective.<br>• Power FPC is defective. |


Inspection of focus aid
Abnormal
Focus aid is incorrect.
Normal
Remove bottom cover, apply approx. 5V to AF motor cords (red, blue), and check operation of AF motor.
Abnormal
• AF motor is defective.
• AF base plate is defective.
Normal
Hold up top cover (while not removing cords (pink, purple)). Press shutter release button lightly after setting focusing ring of AF lens to near or infinity. Check to see if voltage is output in either following IC pins: [AF-MCU: (60): O: AF-MD (3)] or [AF-MCU: (61): O: AF-MD (2)].
Voltage is output.
• Poor press contact (A)
• Power FPC is defective. (Poor soldering of AF motor drivers (2) and (3). AF motor driver is defective.)
Voltage is not output.
• Main FPC is defective. (AF-MCU is defective.)

| | Phenomenon | Cause |
|---|---|---|
| D-3 | AF servo operation is unstable. | • Dust is present on CCD. (AF sensor)<br>• AF, PI are defective.<br>• Main FPC is defective.<br>• Customer's lens is defective. |


Mount AF lens for tool on camera, and check operation of camera.
Normal
• Customer's lens is defective.
Abnormal
Check X BAR P using a personal computer. Is uniform CCD output?
No
• Dust is present on CCD.
• CCD is defective.
Yes
• AF, PI are defective.
• Poor soldering or poor mounting of AF, PI.
• Main FPC is defective. (AF-MCU is defective.)

| | Phenomenon | Cause |
|---|---|---|
| D-4 | Focus indicators appear even when subject is not in focus on the focusing screen, or subject is not in focus and camera performs scanning operation only. | • Dust is present on CCD (AF sensor) or mirror.<br>• Camera back and main mirror are mounted on incorrect positions. |

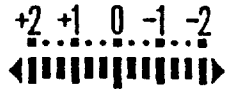

Mount AF lens for tool on camera, and check operation of camera.
Normal
Customer's lens is defective.
Abnormal
Mirror (main or sub) is contaminated. Clean dust on CCD, and check operation of camera.
Normal
Dust or contamination
Abnormal
Check camera back. Check to see if the angle between main and sub mirror is 45°.
Normal
• Camera is defective or adjustment of main and sub mirror is incorrect.
Abnormal
Adjust AF metering.

| | Phenomenon | Cause |
|---|---|---|
| E-1 | No display appears. (Camera operates properly.) | • LCD-Dr is defective. (Poor soldering of pins (1), (9), (15), (76), (77), (78), (79).)<br>• Poor soldering of R77 |

| | Phenomenon | Cause |
|---|---|---|
| E-2 | Exposure mode mark is incorrect.<br> | |
| | Only inside viewfinder LCD is defective. → | • Poor contact between inside viewfinder LCD and main FPC<br>• Conductive rubber is defective.<br>• LCD is defective. |
| | Only external LCD panel is defective. → | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected. |
| | Both inside viewfinder LCD and external LCD panel are defective. → | • Poor soldering of LCD-Dr pins (25)-(28)<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-3 | Metering mode mark is incorrect. | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• Poor soldering of LCD-Dr: pins (59), (60).<br>• LCD-Dr is defective.<br>• Main FPC circuit patterns are disconnected. |

| | Phenomenon | Cause |
|---|---|---|
| E-4 | Exposure compensation indicator is incorrect. | |
| | Only inside viewfinder LCD is defective. → | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Poor soldering of LCD-Dr: pin (65) |
| | Only external LCD panel is defective. → | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pin (59). |
| | Both external LCD panel and inside viewfinder LCD are defective. → | • Poor soldering of LCD-Dr: pins (59), (65)<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-5 | Exposure compensation indicator is incorrect.<br>  <br> | |
| | Only inside viewfinder LCD is defective. → | • Poor contact of press contact between inside viewfinder LCD and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Poor soldering of LCD-Dr: pin (73) |
| | Only external LCD panel is defective. → | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pin (61). |
| | Both external LCD panel and inside viewfinder LCD are defective. → | • Poor soldering of LCD-Dr: pins (61), (66)-(73)<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-6 | Film speed setting mark is incorrect.<br> <br> | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pin (59).<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-7 | Shutter speed setting mark is incorrect. | |
| | Only inside viewfinder LCD is defective. | • Poor contact of press contact between inside viewfinder LCD and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Poor soldering of LCD-Dr: pin (73) |
| | Only external LCD panel is defective. | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pin (53). |
| | Both external LCD panel and inside viewfinder LCD are defective. | • Poor soldering of LCD-Dr: pins (25), (29)-(35), (62)-(65)<br>• LCD-Dr is defective. |

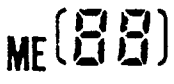
| | Phenomenon | Cause |
|---|---|---|
| E-8 | Aperture value display is incorrect. | |
| | Only inside viewfinder LCD is defective. | • Poor contact of press contact between inside viewfinder LCD and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective. |
| | Only external LCD panel is defective. | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected. |
| | Both external LCD panel and inside viewfinder LCD are defective. | • Poor soldering of LCD-Dr: pins (36)-(43)<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-9 | Film advance mode mark is incorrect.<br> | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pins (55), (56).<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-10 | Film installation mark is incorrect.<br> | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pin (54).<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-11 | Film advance and rewind mark is incorrect.<br> | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pins (52), (53).<br>• LCD-Dr is defective. |

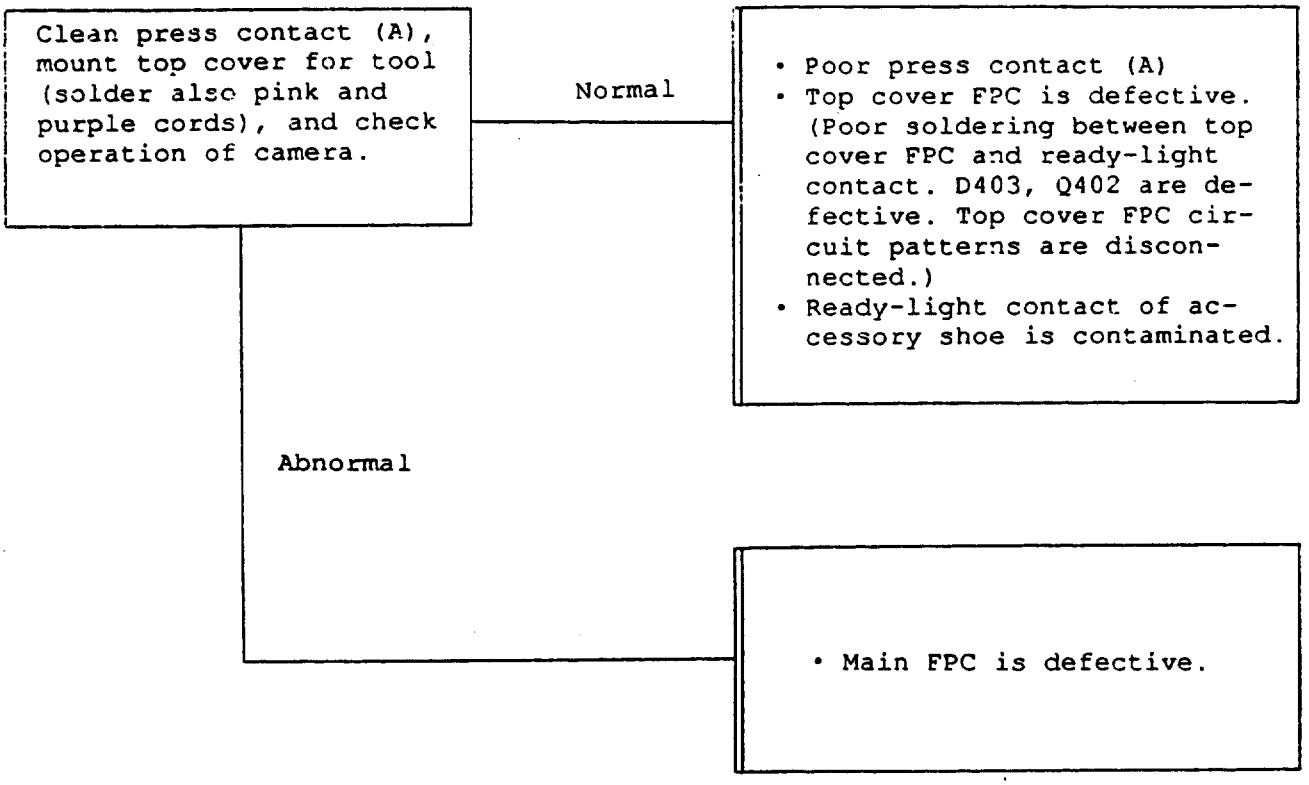
| | Phenomenon | Cause |
|---|---|---|
| E-12 | Self-timer mark is incorrect.<br> | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pin (61).<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-13 | Multiple exposure mark is incorrect.<br>  | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pin (51).<br>• LCD-Dr is defective. |

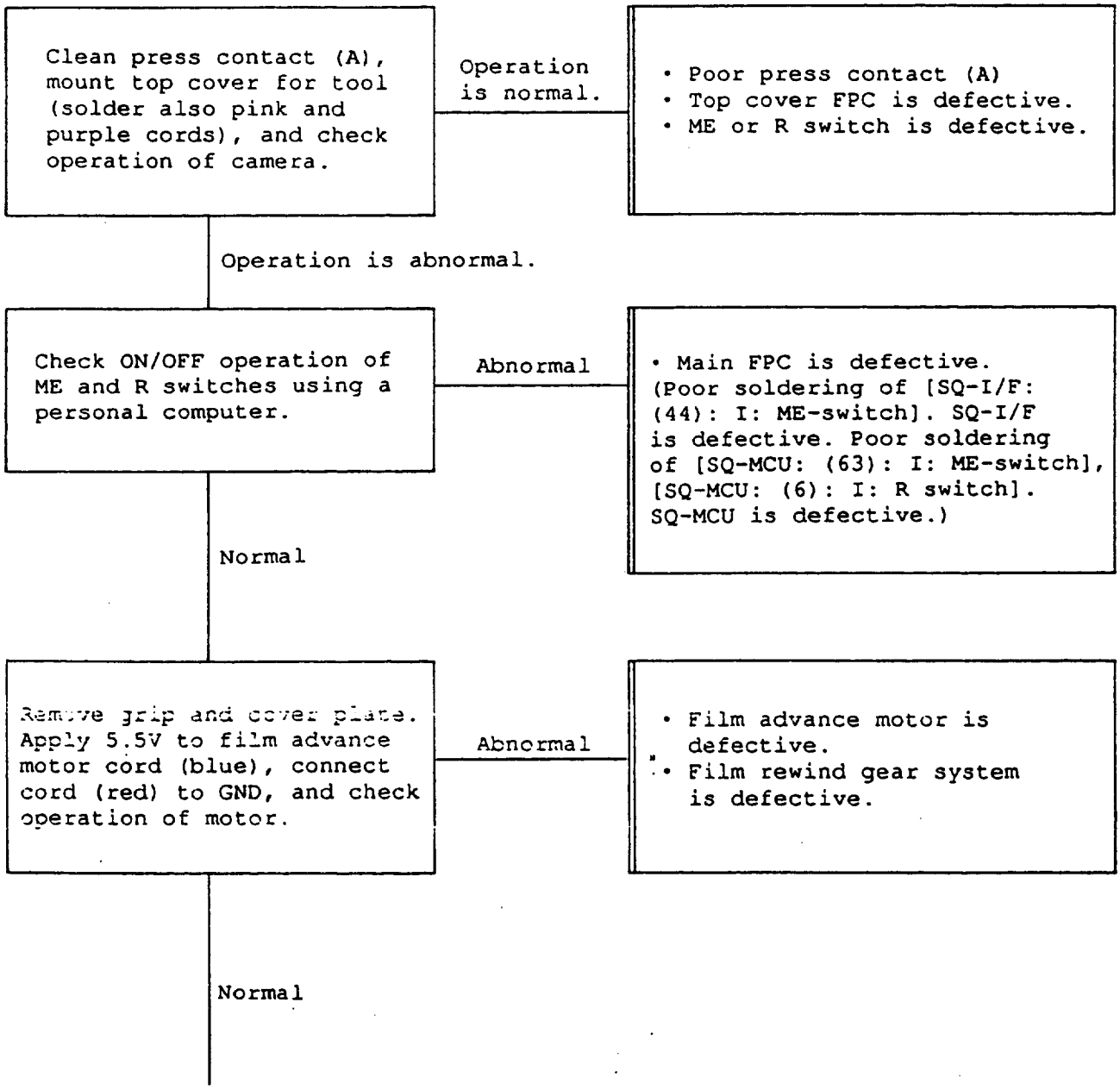
| | Phenomenon | Cause |
|---|---|---|
| E-14 | Frame counter display is incorrect.<br> | • Poor contact of press contact between external LCD panel and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Main FPC circuit patterns are disconnected.<br>• Poor soldering of LCD-Dr: pins (44)-(50).<br>• LCD-Dr is defective. |

| | Phenomenon | Cause |
|---|---|---|
| E-15 | Focus indicators (inside viewfinder LCD) are incorrect. | • Poor contact of press contact between internal viewfinder LCD and main FPC.<br>• Conductive rubber is defective.<br>• LCD is defective.<br>• Poor soldering of LCD-Dr: pins (74), (75).<br>• LCD-Dr is defective. |

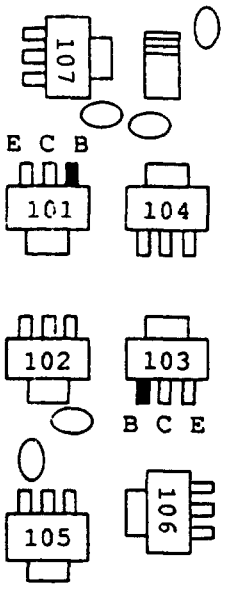
| | Phenomenon | Cause |
|---|---|---|
| E-16 | Ready-light LED (inside viewfinder) does not light up. | • Poor press contact (A)<br>• Top cover FPC is defective.<br>• Ready-light contact of accessory shoe is contaminated. |


Clean press contact (A), mount top cover for tool (solder also pink and purple cords), and check operation of camera.
Normal
• Poor press contact (A)
• Top cover FPC is defective. (Poor soldering between top cover FPC and ready-light contact. D403, Q402 are defective. Top cover FPC circuit patterns are disconnected.)
• Ready-light contact of accessory shoe is contaminated.
Abnormal
• Main FPC is defective.

| | Phenomenon | Cause |
|---|---|---|
| F-1 | Film rewind operation does not work. | • Poor press contact (A)<br>• Main FPC is defective.<br>• Power FPC is defective.<br>• Film advance motor is defective. |


Clean press contact (A), mount top cover for tool (solder also pink and purple cords), and check operation of camera.
Operation is normal.
• Poor press contact (A)
• Top cover FPC is defective.
• ME or R switch is defective.
Operation is abnormal.
Check ON/OFF operation of ME and R switches using a personal computer.
Abnormal
• Main FPC is defective. (Poor soldering of [SQ-I/F: (44): I: ME-switch]. SQ-I/F is defective. Poor soldering of [SQ-MCU: (63): I: ME-switch], [SQ-MCU: (6): I: R switch]. SQ-MCU is defective.)
Normal
Remove grip and cover plate. Apply 5.5V to film advance motor cord (blue), connect cord (red) to GND, and check operation of motor.
Abnormal
• Film advance motor is defective.
• Film rewind gear system is defective.
Normal

Measure base voltage of Q101, Q103 in film rewind mode (ME switch, R switch are ON.)
Correct value: Approx. 4.7V (Q101). Approx. 0.76V (Q103)




Abnormal

- Main FPC is defective. (Poor soldering of [SQ-I/F: (10): O: Driving FM-MD, Q101], [SQ-I/F: (11): O: Driving FM-MD, Q103]. SQ-I/F is defective. Main FPC circuit patterns are disconnected.
- Power FPC circuit patterns are disconnected.

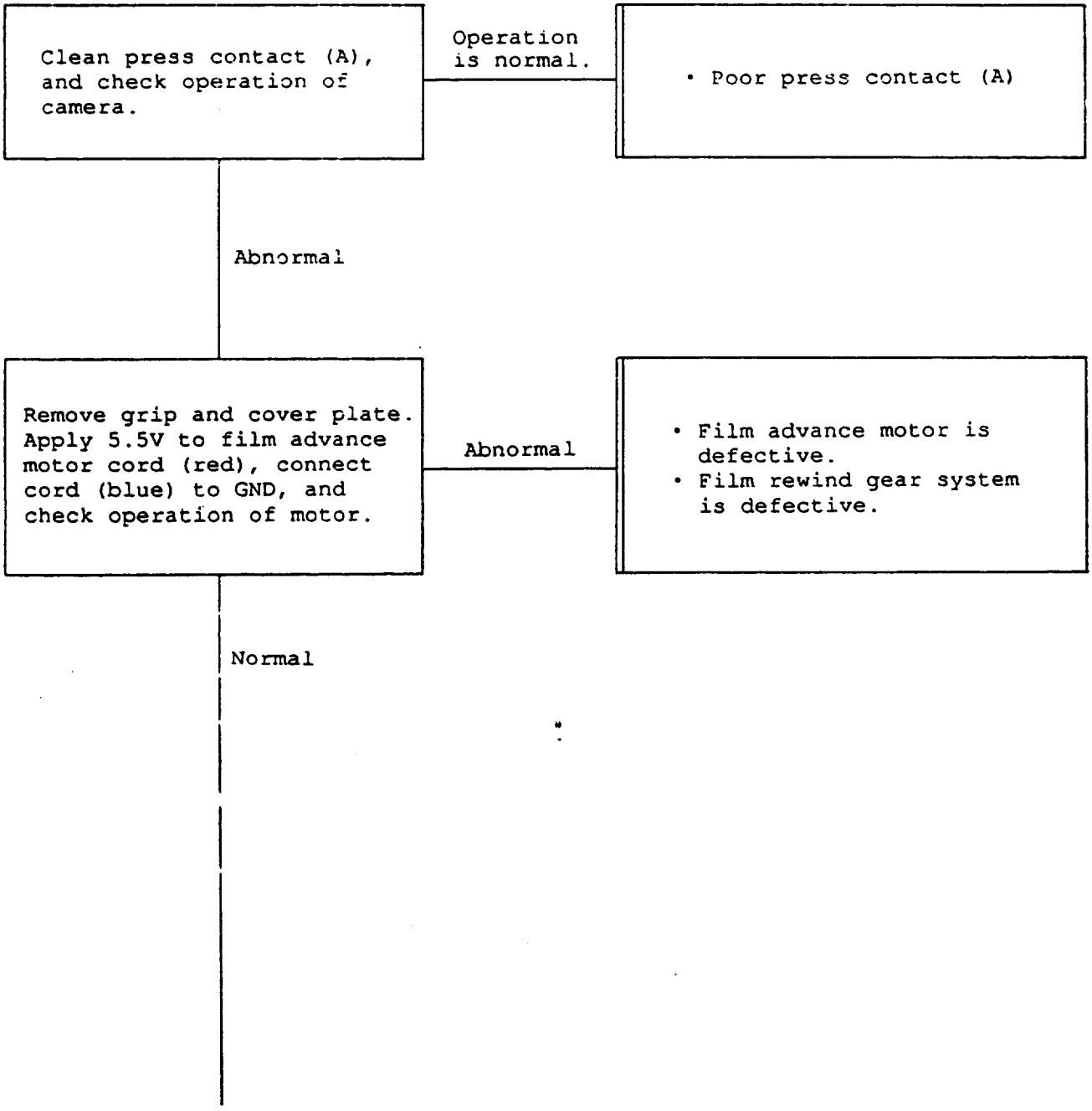
Normal

- Power FPC is defective. (Q101 or Q103 is defective. Poor soldering of R101.)

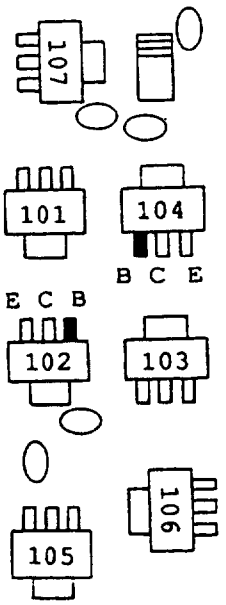
| | Phenomenon | Cause |
|---|---|---|
| F-2 | When film rewind button is pressed, frame counter shows "E" and motor stops, then film rewind operation become impossible. | • Poor soldering of FM.PI cord<br>• FM, PI are defective. |

| | Phenomenon | Cause |
|---|---|---|
| F-3 | When film rewind button is pressed, - - - or frame counter shows "0" while rewinding film (film rewind operation is completed). | • Film detection switch is short-circuited. |

| | Phenomenon | Cause |
|---|---|---|
| G-1 | Camera operation stops while showing frame advance error. (Film is loaded.) | • Poor press contact (A)<br>• Main FPC is defective.<br>• Power FPC is defective.<br>• Film advance motor is defective. |


Clean press contact (A), and check operation of camera.
Operation is normal.
• Poor press contact (A)
Abnormal
Remove grip and cover plate. Apply 5.5V to film advance motor cord (red), connect cord (blue) to GND, and check operation of motor.
Abnormal
• Film advance motor is defective.
• Film rewind gear system is defective.
Normal

Load film cartridge, close camera back, and measure base voltage of Q102, Q104 after shutter is released. Correct value: Approx. 4.7V (Q102). Approx. 0.76V (Q104)



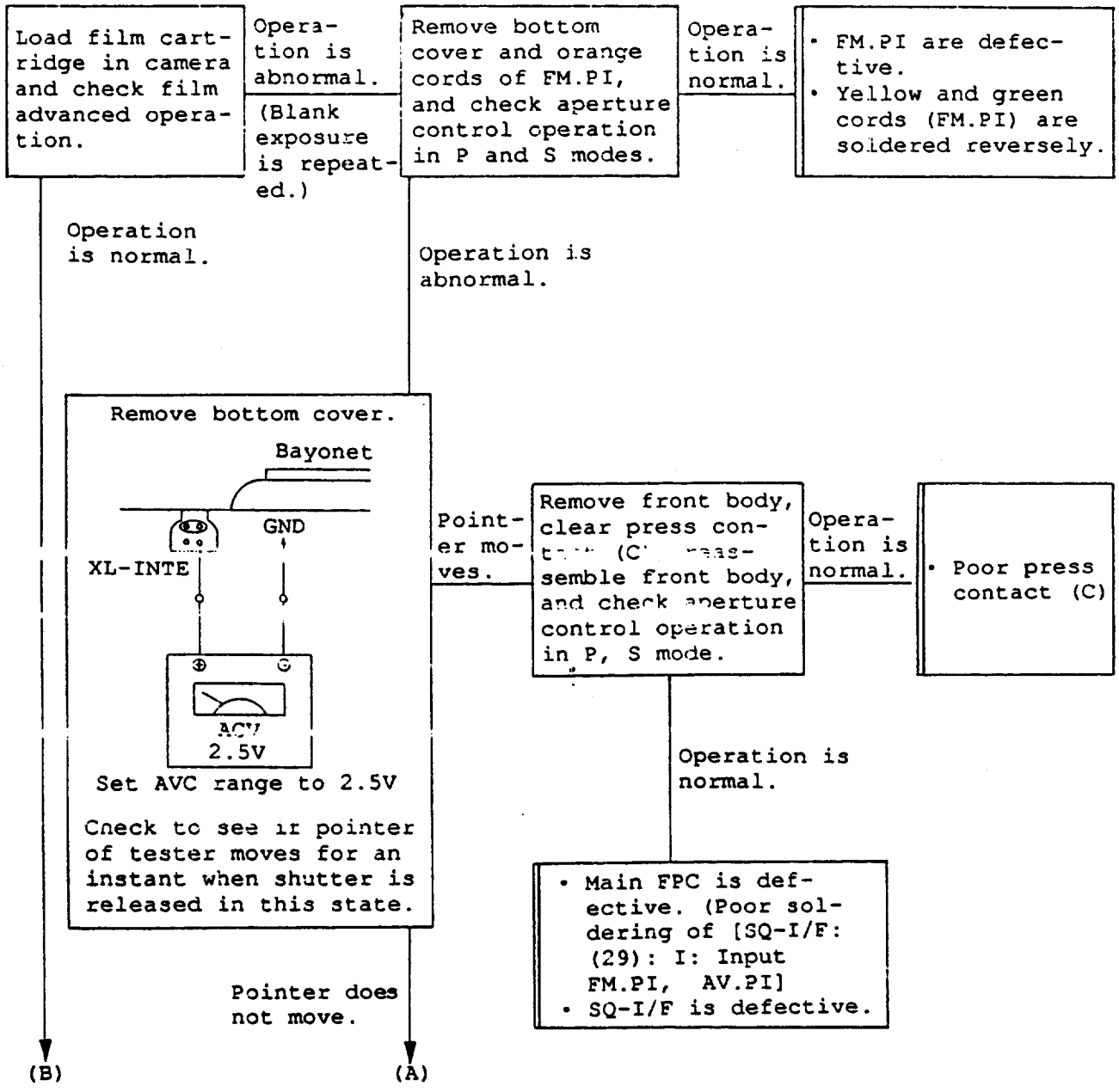

Abnormal

- Main FPC is defective. (Poor soldering of [SQ-I/F: (13): O: Driving FM-MD, Q104], [SQ-I/F: (14): O: Driving FM-MD, Q102]. SQ-I/F is defective.
- Main FPC circuit patterns are disconnected.
- Power FPC circuit patterns are disconnected.

Normal

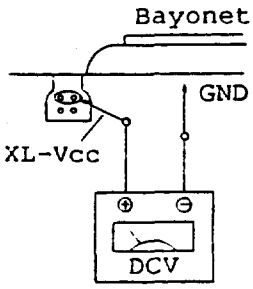
- Power FPC is defective. (Q102 or Q104 is defective.. Poor soldering of R102.)

| | Phenomenon | Cause |
|---|---|---|
| J-1 | Always minimum aperture value in P, S mode. | • Poor press contact (A)<br>• AV interrupter (AV. PI) is defective.<br>• Main FPC is defective.<br>• Aperture Mg is defective.<br>• FM interrupter is defective. (FM.PI)<br>• AF base plate FPC is defective. |


Load film cartridge in camera and check film advanced operation.
Operation is abnormal.
(Blank exposure is repeated.)
Remove bottom cover and orange cords of FM.PI, and check aperture control operation in P and S modes.
Operation is normal.
• FM.PI are defective.
• Yellow and green cords (FM.PI) are soldered reversely.
Operation is normal.
Operation is abnormal.
Remove bottom cover.
Bayonet
GND
XL-INTE
AC V
2.5V
Set AVC range to 2.5V
Check to see if pointer of tester moves for an instant when shutter is released in this state.
Pointer moves.
Remove front body, clear press contact (C) reassemble front body, and check aperture control operation in P, S mode.
Operation is normal.
• Poor press contact (C)
Operation is normal.
• Main FPC is defective. (Poor soldering of [SQ-I/F: (29): I: Input FM.PI, AV.PI]
• SQ-I/F is defective.
Pointer does not move.
(B)
(A)

(A)

Remove bottom cover.




Measure voltage when shutter prerelease switch is ON. Correct value: Approx. 5.25V.

Abnormal

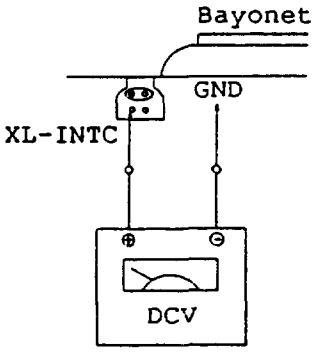
- Poor press contact (C)
- AF base plate circuit patterns are disconnected.

Normal.

4.5V is not output when shutter pre-release switch is ON.

- AV. PI is defective.

Remove bottom cover




Check to see if approx. 4.5V is output when shutter prerelease switch is ON, and pointer moves to negative direction (or toward 0V) for an instant while shutter is released.

Pointer moves while shutter is released.

- AV. PI is defective.

Pointer does not move while shutter is released. (Approx. 4.5V)

Remove front body, clean press contact (C), reassemble front body, and check operation of aperture control operation in P, S mode.

Operation is abnormal.

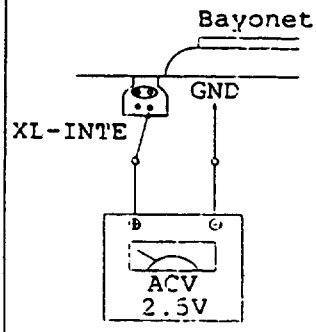
- Main FPC is defective. (Poor soldering of [SQ-I/F: (27): O: Driving LED of AV, PI].

Operation is normal.

- Poor press contact (C)

(B)

Remove bottom cover.




Set ACV range to 2.5V.

Check to see if pointer moves for an instant when shutter is released in this state.

Pointer moves.

Remove front body, aperture Mg cords (red and blue), connect batteries, and check aperture Mg operation.

Aperture Mg does not operate.

- Aperture Mg is defective.

Aperture Mg operates.

Remove front body, clean press contact (C), reassemble front body, and check aperture control operation in P, S mode.

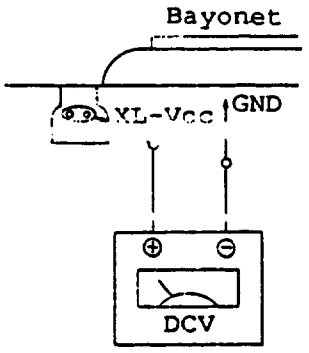
Operation is normal.

- Poor press contact (C)

Operation is abnormal.

Main FPC is defective. (Q1 (Tr. for driving aperture Mg) is defective. Poor soldering of [SQ-I/F: (26): O: Driving aperture Mg]. SQ-I/F is defective.

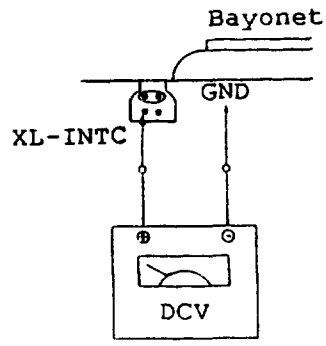
Remove bottom cover.




Measure voltage when shutter prerelease switch is ON. Correct value: Approx. 5.25V.

- Poor press contact (C)
- AF base plate FPC circuit patterns are disconnected.

Remove bottom cover.




Check to see if approx. 4.5V is output when shutter prerelease switch is ON and pointer moves for an instant to negative direction (or toward 0V) while shutter is released.

Approx. 4.5V is not output when shutter prerelease switch is ON.

- AV, PI are defective.

Pointer moves while shutter is released.

- AV, PI are defective.

Pointer does not move while shutter is released. (Remains at approx. 4.5V)

Remove front body, clean press contact (C), reassemble front body, and check aperture control operation in P, S mode.

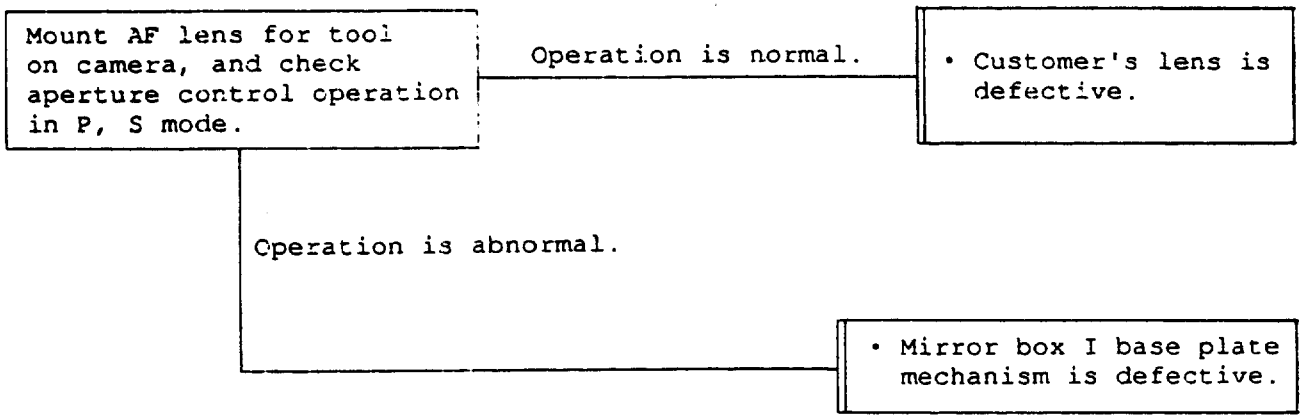
Operation is abnormal.

- Main FPC is defective. (Poor soldering of [SQ-I/F: (27): O: Driving LED of AV, PI].

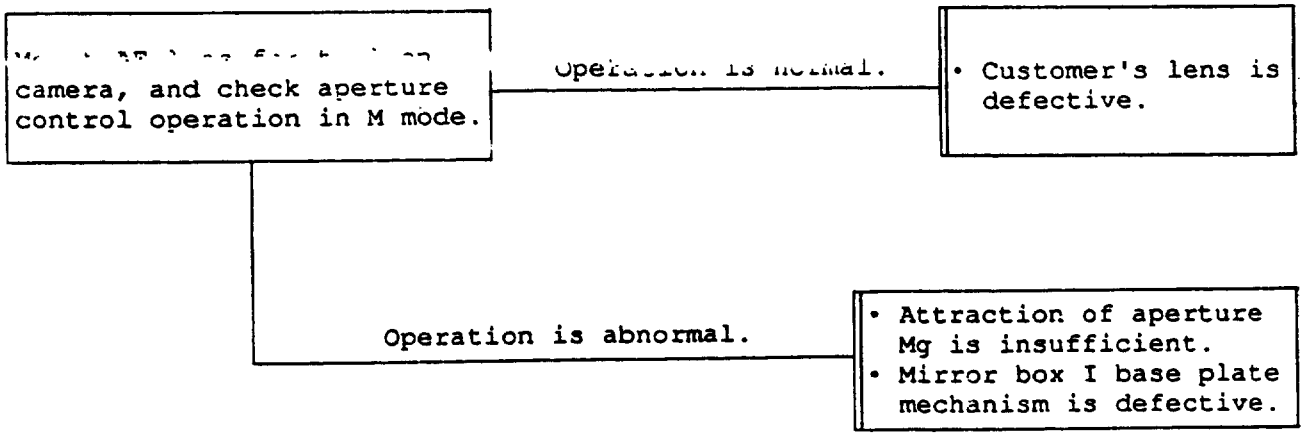
Operation is normal.

- Poor press contact (C)

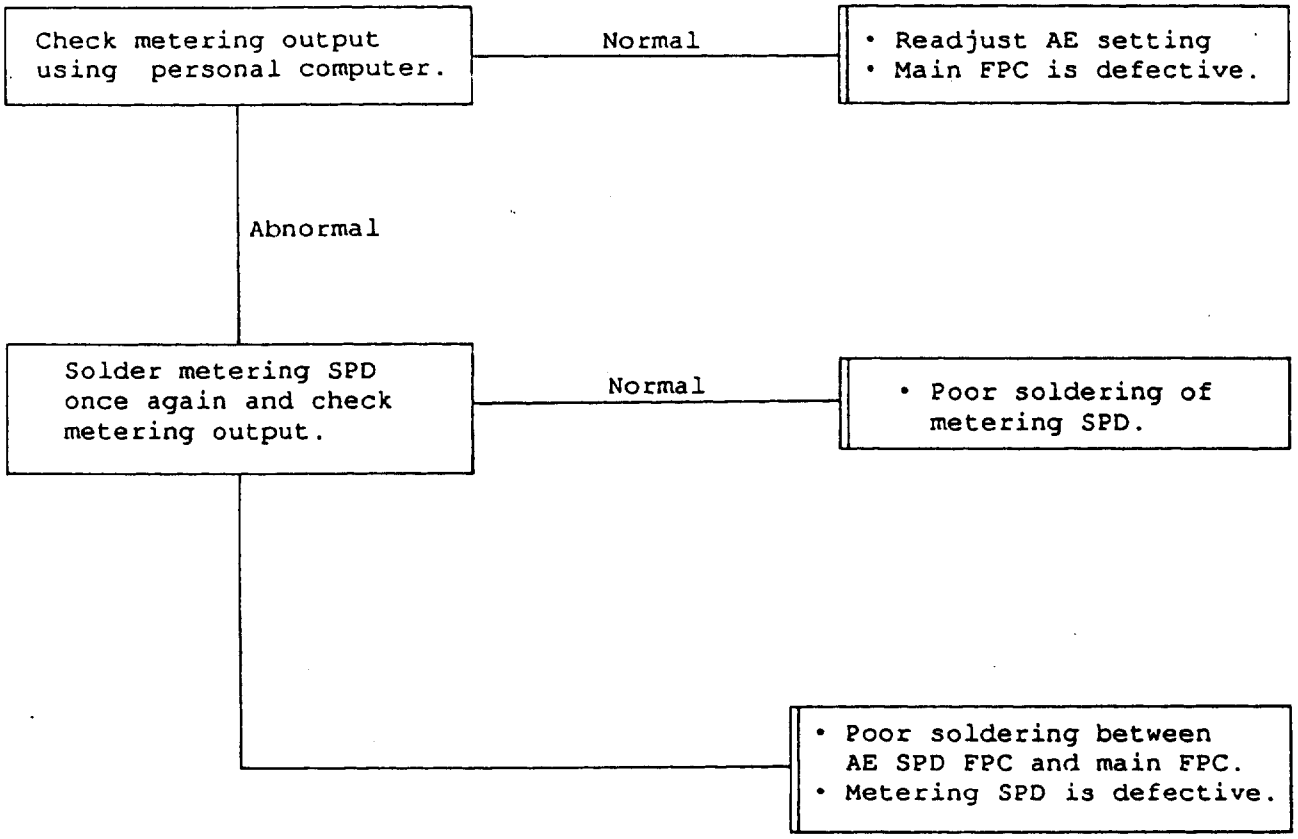
| | Phenomenon | Cause |
|---|---|---|
| J-2 | Unstable aperture control in P, S mode. | • Mirror box I base plate mechanism is defective.<br>• Customer's lens is defective. |


Mount AF lens for tool on camera, and check aperture control operation in P, S mode.
Operation is normal.
• Customer's lens is defective.
Operation is abnormal.
• Mirror box I base plate mechanism is defective.

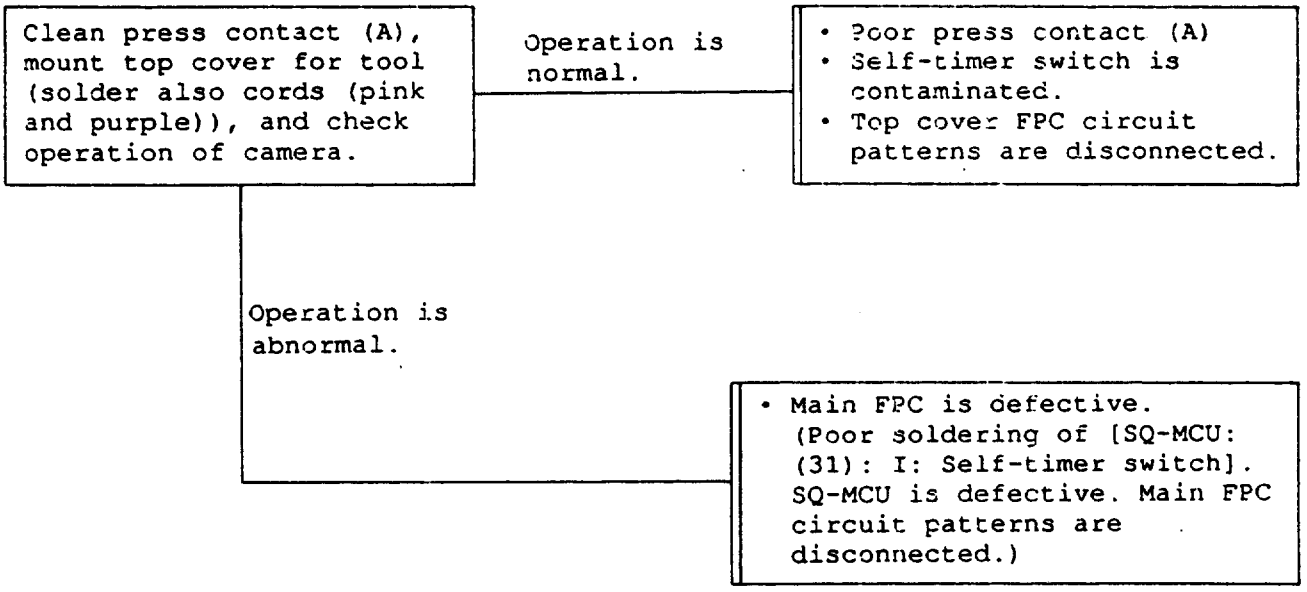
| | Phenomenon | Cause |
|---|---|---|
| J-3 | Aperture is not correctly controlled in M, A mode. | • Attraction of aperture Mg is insufficient.<br>• Mirror box I base plate mechanism is defective.<br>• Customer's lens is defective. |


camera, and check aperture control operation in M mode.
• Customer's lens is defective.
Operation is abnormal.
• Attraction of aperture Mg is insufficient.
• Mirror box I base plate mechanism is defective.

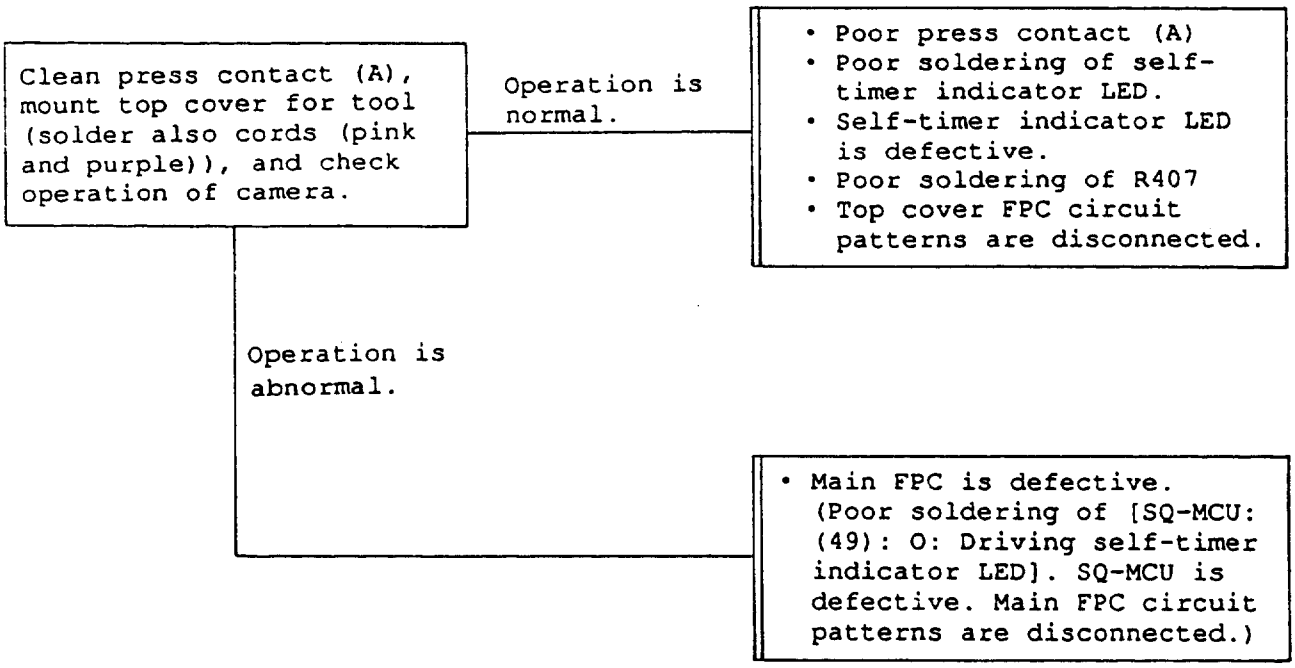
| | Phenomenon | Cause |
|---|---|---|
| J-4 | Exposure is not properly controlled in A, S, P mode. | • Metering SPD is defective.<br>• Poor soldering between AE SPD FPC and main FPC<br>• Main FPC is defective. |


Check metering output using personal computer.
Normal
• Readjust AE setting
• Main FPC is defective.
Abnormal
Solder metering SPD once again and check metering output.
Normal
• Poor soldering of metering SPD.
• Poor soldering between AE SPD FPC and main FPC.
• Metering SPD is defective.

| | Phenomenon | Cause |
|---|---|---|
| K-1 | Self-timer operation does not work properly. | • Poor press contact (A)<br>• Self-timer switch is contaminated.<br>• Top cover FPC circuit patterns are disconnected.<br>• Main FPC is defective. |


Clean press contact (A), mount top cover for tool (solder also cords (pink and purple)), and check operation of camera.
Operation is normal.
• Poor press contact (A)
• Self-timer switch is contaminated.
• Top cover FPC circuit patterns are disconnected.
Operation is abnormal.
• Main FPC is defective. (Poor soldering of [SQ-MCU: (31): I: Self-timer switch]. SQ-MCU is defective. Main FPC circuit patterns are disconnected.)

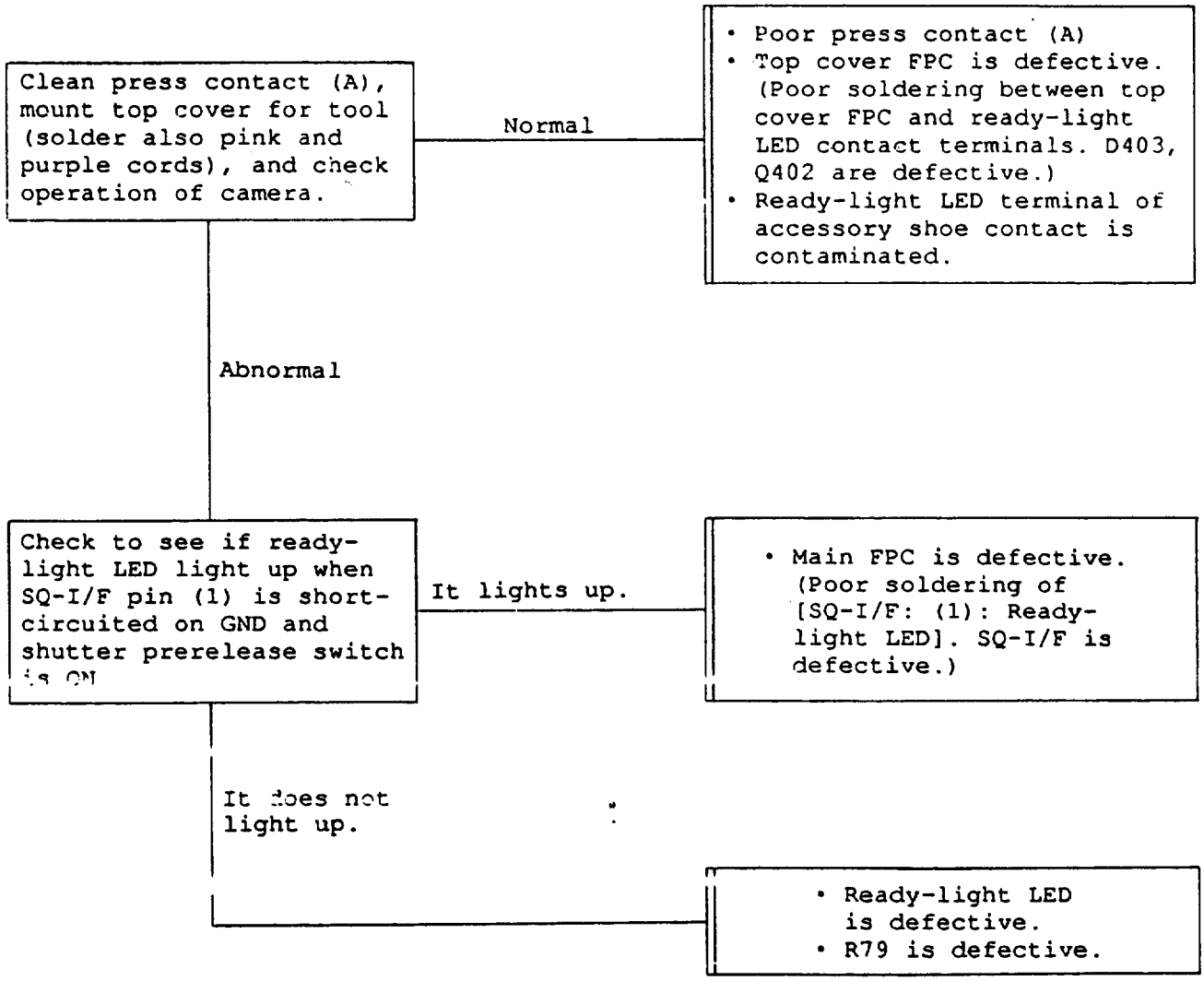
| | Phenomenon | Cause |
|---|---|---|
| K-2 | Self-timer mark does not appear while self-timer cperation works properly. | • Poor press contact (A)<br>• Poor soldering of self-timer LED or LED is defective.<br>• Top cover FPC circuit patterns are disconnected.<br>• Main FPC is defective. |


Clean press contact (A), mount top cover for tool (solder also cords (pink and purple)), and check operation of camera.
Operation is normal.
• Poor press contact (A)
• Poor soldering of self-timer indicator LED.
• Self-timer indicator LED is defective.
• Poor soldering of R407
• Top cover FPC circuit patterns are disconnected.
Operation is abnormal.
• Main FPC is defective. (Poor soldering of [SQ-MCU: (49): O: Driving self-timer indicator LED]. SQ-MCU is defective. Main FPC circuit patterns are disconnected.)

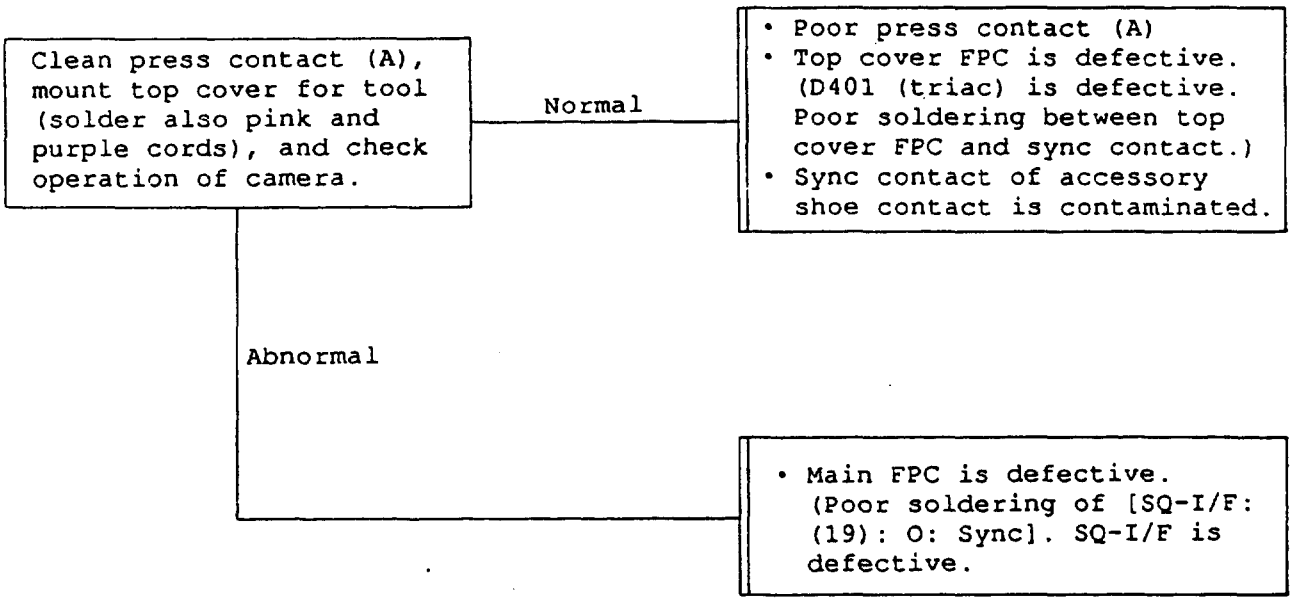
| | Phenomenon | Cause |
|---|---|---|
| | Quick battery power consumption<br>It is hard to determine the specific cause of this problem due to various phenomena (LCD displays, shutter release operation, etc.) and causes. Following phenomena and causes are reported to Nikon by November 1988.<br><br>Ref: Correct current consumption is as follows:<br><br>Approx. 65mA — Main switch is OFF (before fastening the battery holder lock screw).<br>Approx. 9μA — Main switch is OFF (after fastening the battery holder lock screw).<br>Approx. 120mA — Main switch is ON (while shutter prerelease timer is ON).<br>Approx. 150μA — Main switch is ON (while shutter prerelease timer is OFF). | |
| | Approx. 100mA flows. Shutter release and auto focus operations are impossible. No display appears. | • Battery release switch is not OFF. |
| | Approx. 100mA flows. | • D3 is defective |
| | Approx. 70-80mA flows when power is ON, and camera does not operate. | • Main FPC is defective.<br>• Power FPC is defective. |
| | Large current consumption flows and camera does not operate. | • Main FPC is defective. |
| | Shutter prerelease switch is not OFF. | • Main FPC is defective.<br>• Power FPC is defective. |
| | Approx. 60mA when main switch is OFF. | • Sync cord (purple) is short-circuited. |
| | Approx. 0.15mA when main switch is OFF. | • Main switch is defective. |

| | Phenomenon | Cause |
|---|---|---|
| | Battery generates heat.<br>It is hard to determine the specific cause of this problem due to various causes. A few possibilities include the following: | • DC-DC converter pin (1) is detached.<br>• DC-DC converter is defective.<br>• Power cord (red) is pinched.<br>• Short-circuit between cover plate (1K611-077) and power cord (red).<br>• Short-circuit between inductor (L101) and inductor supporting plate (1K611-099-1).<br>• Power FPC is defective.(C104 is short-circuited.) |

| | Phenomenon | Cause |
|---|---|---|
| M-1 | Ready-light LED (inside viewfinder) does not light up. | • Poor press contact (A)<br>• Poor soldering of top cover FPC<br>• Main FPC is defective.<br>• Ready-light LED is defective. |


Clean press contact (A), mount top cover for tool (solder also pink and purple cords), and check operation of camera.
Normal
• Poor press contact (A)
• Top cover FPC is defective. (Poor soldering between top cover FPC and ready-light LED contact terminals. D403, Q402 are defective.)
• Ready-light LED terminal of accessory shoe contact is contaminated.
Abnormal
Check to see if ready-light LED light up when SQ-I/F pin (1) is short-circuited on GND and shutter prerelease switch is ON
It lights up.
• Main FPC is defective. (Poor soldering of [SQ-I/F: (1): Ready-light LED]. SQ-I/F is defective.)
It does not light up.
• Ready-light LED is defective.
• R79 is defective.

| | Phenomenon | Cause |
|---|---|---|
| M-2 | Flash does not fire. | • Poor press contact (A)<br>• Top cover FPC is defective. |


Clean press contact (A), mount top cover for tool (solder also pink and purple cords), and check operation of camera.
Normal
• Poor press contact (A)
• Top cover FPC is defective. (D401 (triac) is defective. Poor soldering between top cover FPC and sync contact.)
• Sync contact of accessory shoe contact is contaminated.
Abnormal
• Main FPC is defective. (Poor soldering of [SQ-I/F: (19): O: Sync]. SQ-I/F is defective.

| | Phenomenon | Cause |
|---|---|---|
| M-3 | Fault warning after shooting in TTL mode | • Poor soldering of TTL SPD cord does not light up in TTL mode.(yellow)<br>• Main FPC is defective. |

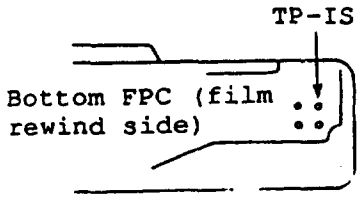
Check data in EEPROM using personal computer.
Correct value:
104 (address 15),
45 (address 17),
51 (address 19)

Data is not correct.

• Rewrite data to EEPROM.

Data is correct.

Remove bottom cover and check to see if voltage of TP-IS varies using a tester when shutter is released.



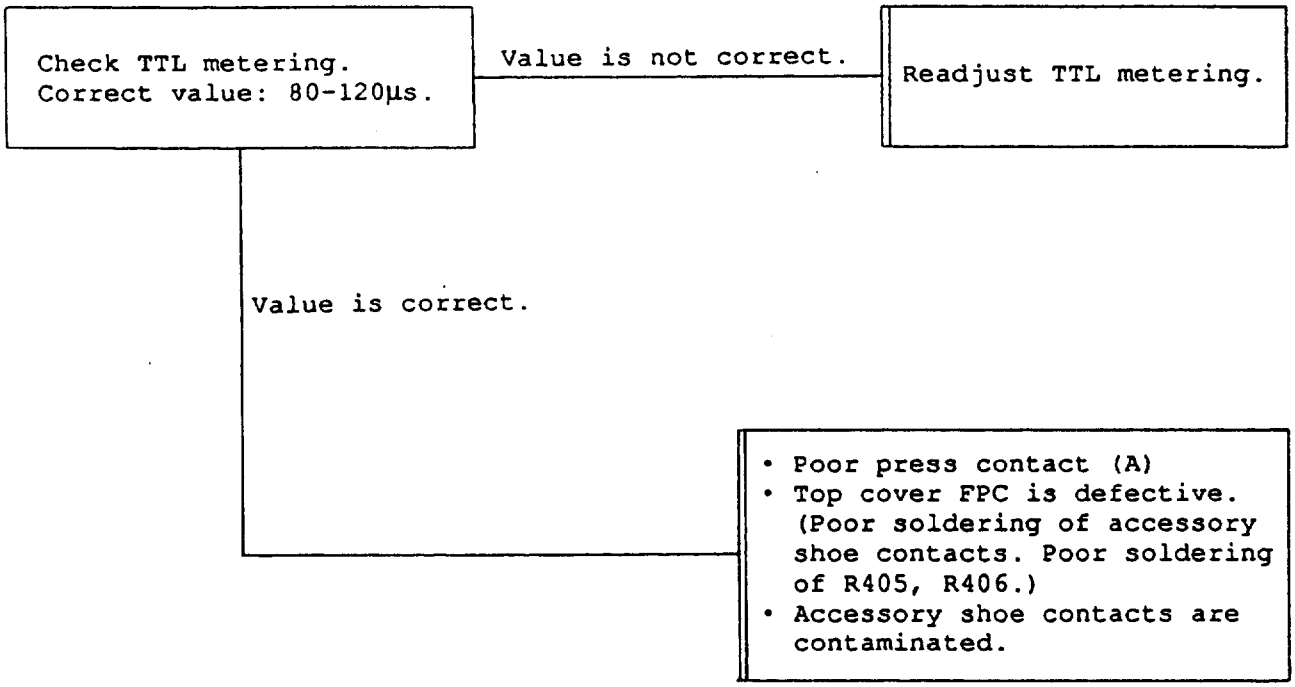

Voltage does not vary.

• Main FPC is defective. (Poor soldering of [SQ-I/F: (57): O: IS sig]. SQ-I/F is defective. Main FPC circuit patterns are disconnected.)

Voltage varies.

• Poor soldering of TTL SPD cord (yellow).
• TTL SPED is defective.
• Main FPC is defective. (Poor soldering of [AF-I/F: (31): D/A output]. Metering IC is defective or poor soldering of IC pin. R50-R53, R92, C9-C11 are defective or poor soldering.)

| | Phenomenon | Cause |
|---|---|---|
| M-4 | Correct exposure is not determined in TTL mode. | • Poor press contact (A)<br>• Poor soldering between top cover FPC and accessory shoe contacts. |


Check TTL metering.
Correct value: 80-120µs.
Value is not correct.
Readjust TTL metering.
Value is correct.
• Poor press contact (A)
• Top cover FPC is defective. (Poor soldering of accessory shoe contacts. Poor soldering of R405, R406.)
• Accessory shoe contacts are contaminated.

| | Phenomenon | Cause |
|---|---|---|
| M-5 | Flash does not synchronize. | • Poor press contact (A)<br>• Shutter unit is defective.<br>• Main FPC is defective. |

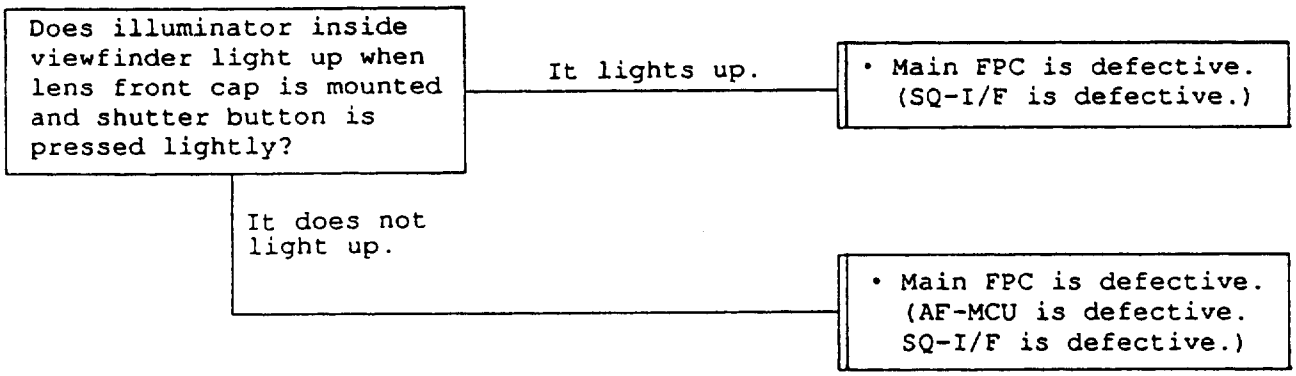
When flash for tool is mounted and set shutter speed to 1/4000 sec. in M mode:
- Shutter speed 250 is shown on LCD panel.
- Does shutter speed (250 sec.) work properly?

Both LCD display and shutter speed do not change.
- Poor press contact (A)
- Main FPC is defective.
- Accessory shoe contacts are contaminated.

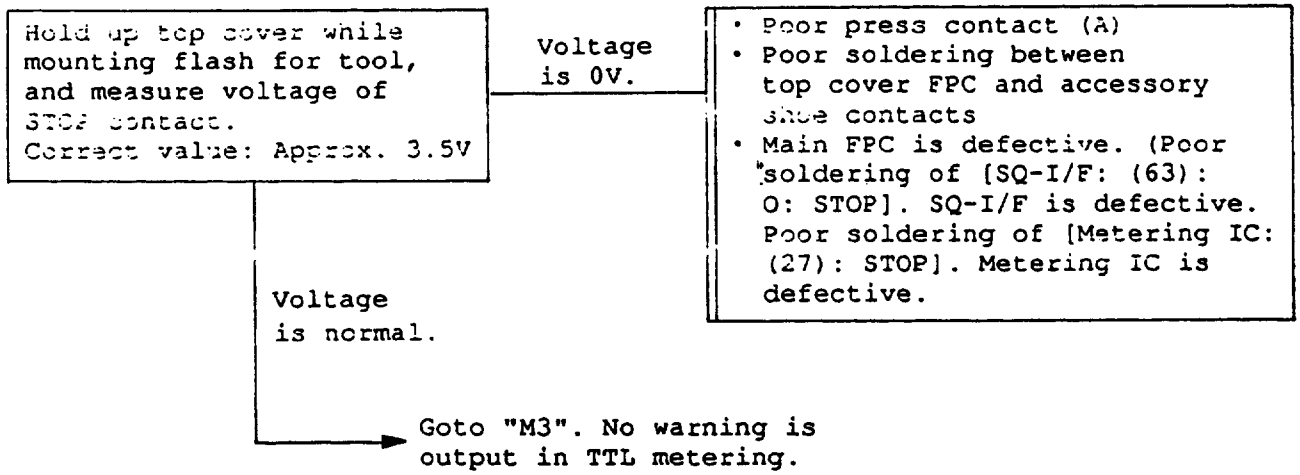
Both LCD display and shutter speed change.
- Shutter unit is defective. (Sync cord is short-circuited.)
- Main FPC is defective.

LCD display changes but shutter speed does not change. → Use AI-based Trouble Diagnosis System to check shutter operation.

| | Phenomenon | Cause |
|---|---|---|
| M-6 | AF illuminator does not light up in AF-S mode. (Other operations are normal.) | • Main FPC is defective. |


Does illuminator inside viewfinder light up when lens front cap is mounted and shutter button is pressed lightly?
It lights up.
• Main FPC is defective. (SQ-I/F is defective.)
It does not light up.
• Main FPC is defective. (AF-MCU is defective. SQ-I/F is defective.)

| | Phenomenon | Cause |
|---|---|---|
| M-7 | Insufficient firing | • Poor press contact (A)<br>• Poor soldering between top cover FPC and accessory shoe contacts.<br>• Main FPC is defective. |

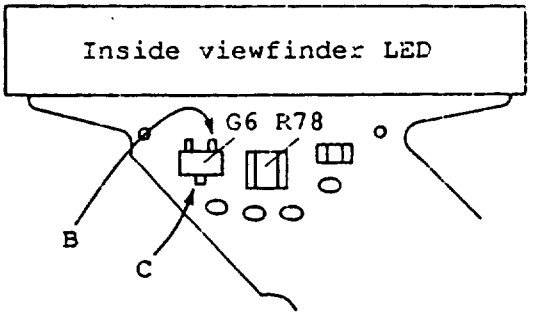

Hold up top cover while mounting flash for tool, and measure voltage of STOP contact.
Correct value: Approx. 3.5V
Voltage is 0V.
• Poor press contact (A)
• Poor soldering between top cover FPC and accessory shoe contacts
• Main FPC is defective. (Poor soldering of [SQ-I/F: (63): O: STOP]. SQ-I/F is defective. Poor soldering of [Metering IC: (27): STOP]. Metering IC is defective.
Voltage is normal.
Goto "M3". No warning is output in TTL metering.

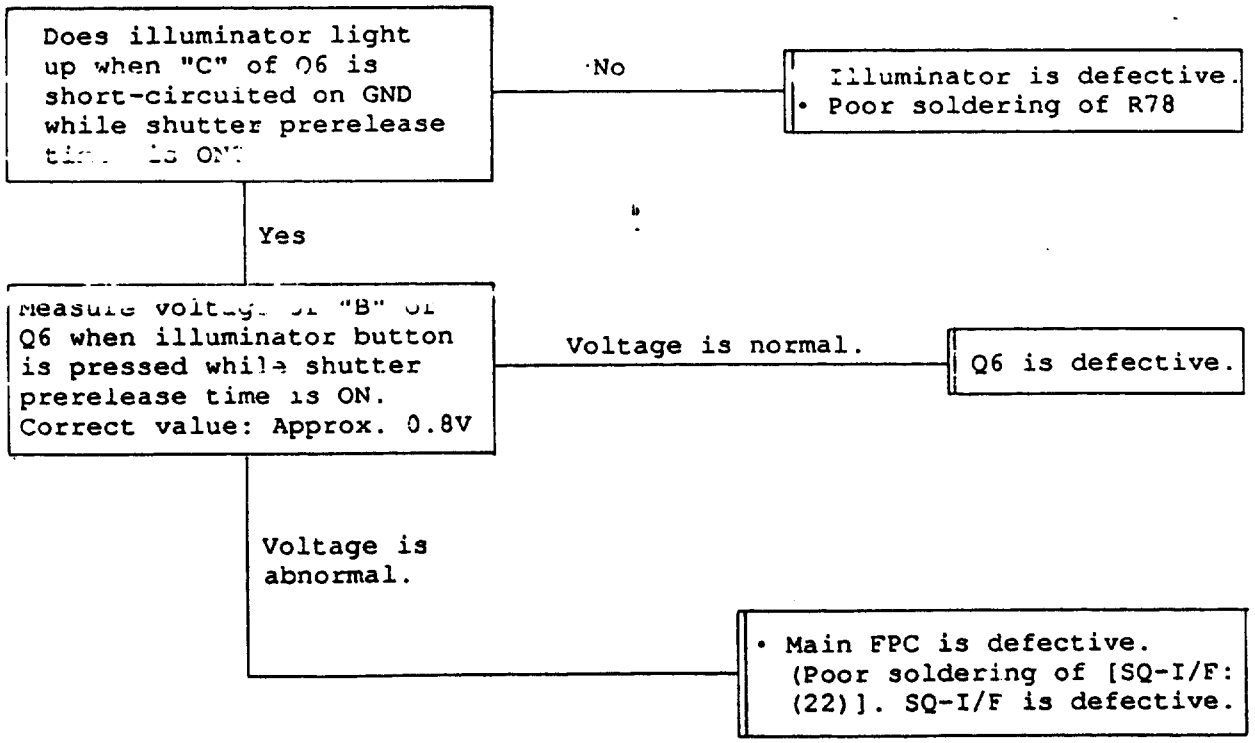
| | Phenomenon | Cause |
|---|---|---|
| N-1 | Illuminator does not light up. | |

(1) Illuminator lights up at low light intensity, but it does not light up when illuminator button is depressed.
- Poor contact of illuminator button switch
- Poor press contact (A)
- Main FPC is defective. (Poor soldering of [SQ-MCU: (7):]. SQ-MCU is defective. Main FPC circuit patterns are disconnected.)

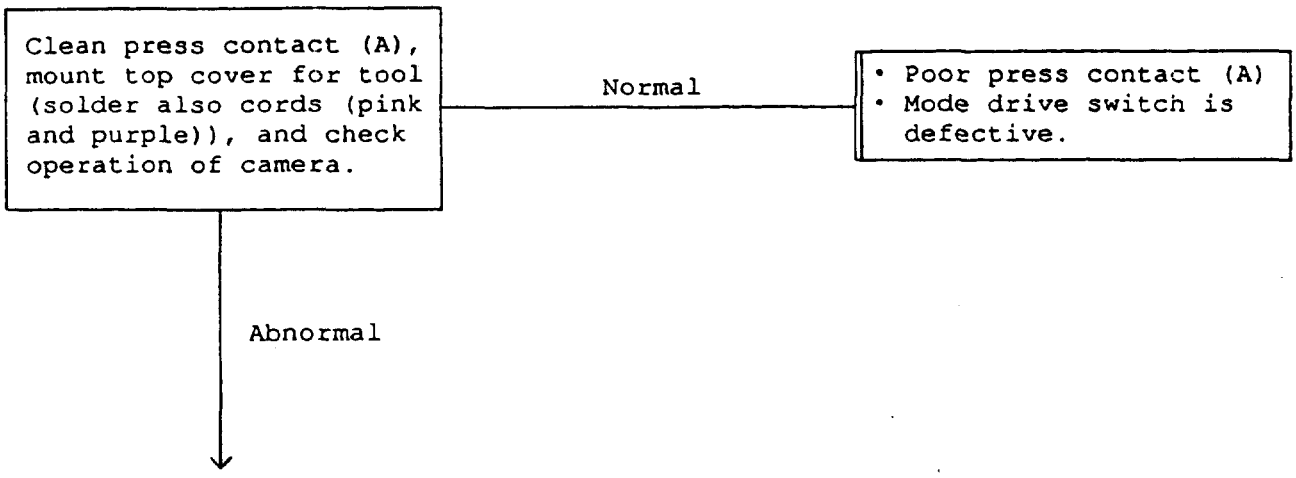
(2) Illuminator lights up when illuminator button is depressed, but it does not light up at low light intensity.
- Main FPC is defective. (AF-MCU is defective. SQ-MCU is defective.)

(3) Illuminator does not light up in either case.





Does illuminator light up when "C" of Q6 is short-circuited on GND while shutter prerelease time is ON?
No
Illuminator is defective.
• Poor soldering of R78
Yes
Measure voltage of "B" of Q6 when illuminator button is pressed while shutter prerelease time is ON.
Correct value: Approx. 0.8V
Voltage is normal.
Q6 is defective.
Voltage is abnormal.
• Main FPC is defective. (Poor soldering of [SQ-I/F: (22)]. SQ-I/F is defective.

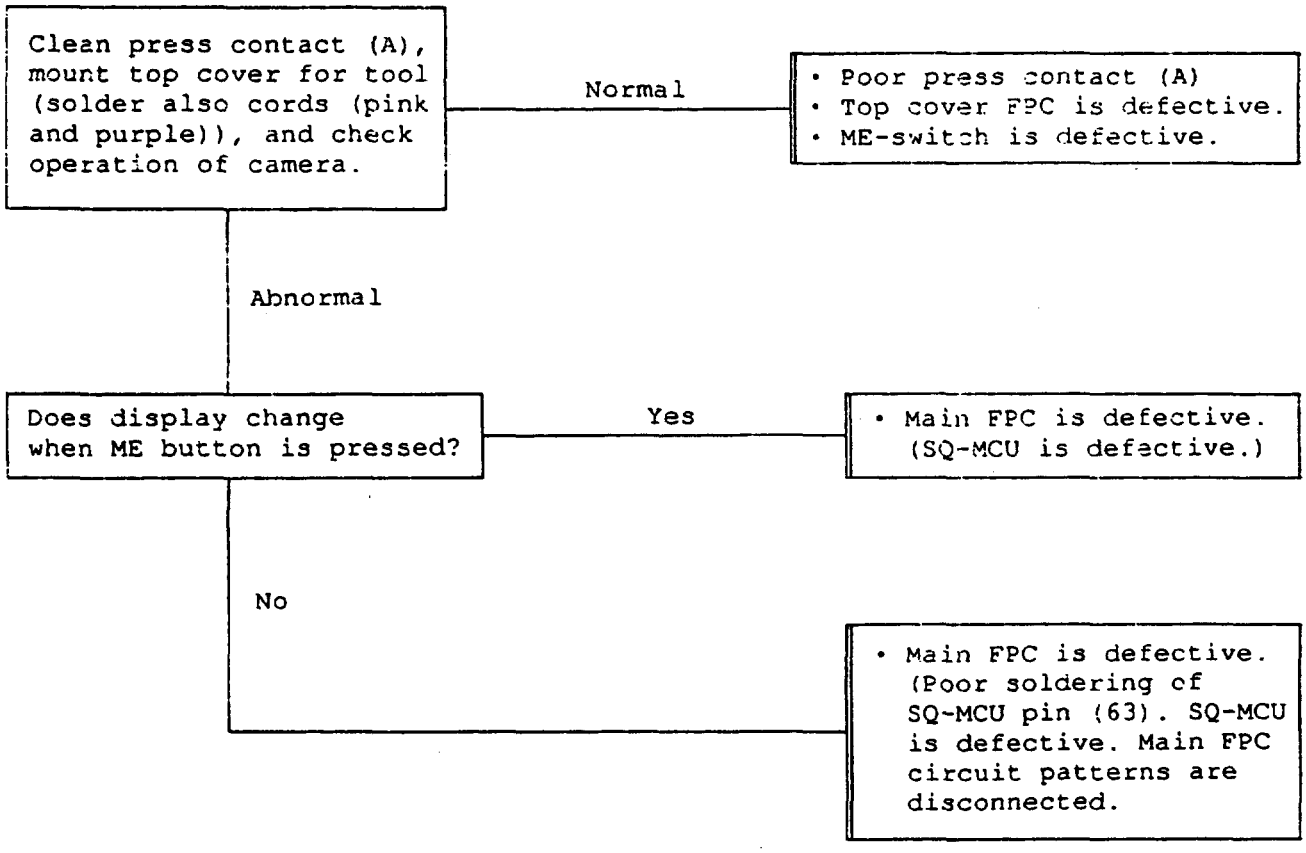
| | Phenomenon | Cause |
|---|---|---|
| N-2 | Instant reset is impossible. | • Poor press contact (A)<br>• Main FPC is defective. |


Clean press contact (A), mount top cover for tool (solder also cords (pink and purple)), and check operation of camera.
Normal
• Poor press contact (A)
• Mode drive switch is defective.
Abnormal

(1) Display does not change when mode button is pressed.
- Main FPC is defective. (Poor soldering of SQ-MCU pin (30). SQ-MCU is defective. Poor soldering of SQ-I/F pin (40). SQ-MCU is defective. Main FPC circuit patterns are disconnected.)

(2) Display does not change when drive button is pressed.
- Main FPC is defective. (Poor soldering of SQ-MCU pin (1). SQ-MCU is defective. Poor soldering of SQ-I/F pin (42). SQ-I/F is defective. Main FPC circuit patterns are disconnected.)

| | Phenomenon | Cause |
|---|---|---|
| N-3 | Multiple exposure mode is not effective. | • Poor press contact (A)<br>• Main FPC is defective. |


Clean press contact (A), mount top cover for tool (solder also cords (pink and purple)), and check operation of camera.
Normal
• Poor press contact (A)
• Top cover FPC is defective.
• ME-switch is defective.
Abnormal
Does display change when ME button is pressed?
Yes
• Main FPC is defective. (SQ-MCU is defective.)
No
• Main FPC is defective. (Poor soldering of SQ-MCU pin (63). SQ-MCU is defective. Main FPC circuit patterns are disconnected.

| | Phenomenon | Cause |
|---|---|---|
| N-4 | Picture is shaded. | • Shutter unit is defective.<br>• Mirror does not move properly. (Mirror box I base plate mechanism is defective.) |

# Trouble data for switches (F-801)

| Switch trouble | LED display External/Internal | AF operation S mode/C mode | Shutter release operation | Film advance/ rewind operation |
|---|---|---|---|---|
| Battery holder release switch is open. (OFF: 10KΩ, ON: 0Ω) | Unsettled: Time after batteries are removed (depending on how much condenser has been discharged.) | | | |
| Battery holder release switch is short-circuited. (Same as above) | Display does not go out even when main switch is OFF. Aperture and shutter speed values are not fixed. When battery is replaced, aperture and shutter speed values do not appear on LCD display. | | Not possible | |
| Film detection switch is open. (CPU detects that film is loaded.) Film is not loaded. | When shutter release button is depressed, film advance operation starts then film installation mark blinks. | | When shutter is released, film advance operation is carried out. (Camera operates as though film is loaded, but no FM signal comes in.) | While pressing film rewind button, film rewind operation is carried out. (It stops immediately when released.) (Gear does not move.) |
| Film is loaded. | | | Normal | Normal |
| Film detection switch is short-circuited. Film is not loaded. | Normal | Normal | Normal | Normal |
| Film is loaded. | | | Normal | Film advance: Normal Film rewind: Normal but frame counter shows 0 immediately. |

## Trouble data for switches (F-801)

| Switch trouble | LED display External/Internal | AF operation S mode/C mode | Shutter release operation | Film advance/ rewind operation |
|---|---|---|---|---|
| FM.PI cord is detached. Film is not loaded. | | | Normal | Normal |
| FM.PI cord is detached. Film is loaded. | When film is advanced, film advance mark blinks, warning buzzer sounds, frame counter shows (E). (Film is not loaded correctly.) | | Film advance operation is performed (film easy loading). Frame counter remains showing (E). Shutter cannot be released. This continues until end of roll. (Actually blank film is advanced.) | Film advance: See left. Film rewind: Film rewind and advance operation is repeated while film rewind button is pressed. (Move gears aside.) When the button is released, film installation mark blinks. (Warning buzzer sounds.) Both EEPROM ADR49=0 (with film leader) and EEPROM ADD49=2 (without film leader) are same. |
| Solenoid is open. | "Err" is displayed (shutter is released). | | Malfunctions when mirror moves up. | |
| Sequence motor is open. | "Err" is displayed (shutter prerelease operation). | | Mirror remains down. | EEPROM ADR42=168 (Correct value:160) |

## Trouble data for switches (F-801)

| Switch trouble | LED display External/Internal | AF operation S mode/C mode | Shutter release operation | film advance/ rewind operation |
|---|---|---|---|---|
| Film advance motor is open (red). Film is not loaded. | | | Normal | Normal |
| Film advance motor is open (red). Film is loaded. | Film installation mark blinks. | | | Film installation mark blinking malfunctions when shutter button is pressed lightly after film is loaded. |
| Camera back switch (Open: when camera back is closed. Close (0V): when camera back is opened.) | | | Functions in the same manner when camera back is closed even if camera back is open (film is not loaded). Functions in the same manner when film is not loaded by holding sprocket with finger if film is loaded. (Film detection switch) | |
| Short-circuited (GND) | | | Shutter cannot be released. (There is no difference whether camera back is opened or closed.) | |

| | | | | |
|---|---|---|---|---|
| Rear curtain switch is open. | "Err" is displayed. (Shutter is released.) | Normal | Malfunctions when mirror moves up. Shutter cannot be charged. Mirror moves down when shutter is released again. | |
| Short-circuit (GND) | Normal | | No problem is found. | |
| | Rear curtain switch: Detects the switch is ON once during shutter release sequence. | | | |

## Trouble data for switches (F-801)

| Switch trouble | LED display External/Internal | AF operation S mode/C mode | Shutter release operation | film advance/ rewind operation |
|---|---|---|---|---|
| Sequence motor stop switch is open. | "Err" is displayed. (Shutter is released.) | AF operation is performed while sequence motor remains rotating. | Malfunctions when mirror moves up. Malfunctions when shutter button is pressed lightly again. Sequence motor remains rotating if shutter is released further (until battery is removed.) (Main switch becomes ineffective.) | |
| Short-circuit (GND) | "Err" is displayed. (Shutter is released.) | AF operation is performed. | Malfunctions (mirror does not move up). Malfunctions when shutter button is pressed lightly again. Becomes error if shutter is released further, though solenoid moves.) (Sound is generated.) | |
| Reference switch is open. Film is not loaded. | Normal | Normal | Normal | |
| Film is loaded. | Normal | Normal | No problem is found. | No problem is found. |

| | | | | |
|---|---|---|---|---|
| Reference switch is short-circuited. Film is not loaded. | Normal | Normal | Normal | |
| Film is loaded. | Frame counter remains showing (E), film advance mark blinks. | Normal | Shutter cannot be released. | Repeats blank film advance. Film rewind operation is normal. (Frame counter remains showing (E).) |

## Trouble data for switches (F-801)

| Switch trouble | LED display External/Internal | AF operation S mode/C mode | Shutter release operation | Film advance/ rewind operation |
|---|---|---|---|---|
| Sync switch is open. | "Err" is displayed. (Shutter is released.) | Normal | Malfunctions when mirror moves up. Shutter cannot be charged. Mirror moves down when shutter is released again. | |
| Short-circuit (GND) | Normal | | No problem is found. | |
| Rear curtain Mg is open. | "Err" is displayed. (Shutter is released.) | Normal | Malfunctions when mirror moves up. Shutter cannot be charged. Mirror moves down when shutter is released again. | |
| Stop-down switch is short-circuited. | Shutter speed and exposure indicator (M mode) are not displayed. "F--" is displayed when aperture is stopping down. | Does not operate. | Shutter cannot be be released. | |
| Aperture Mg is open. | Normal | | Only P.PD and S become the minimum aperture. Display is normal. Operation in A and M modes is normal. | |
| Short-circuit (red side) | Same as above. | | | |

| | | | | |
|---|---|---|---|---|
| 12V (orange) for CCD is open. | /. mode.<br>S: AF focus indicator LED (X | | Shutter cannot be released. | |
| | C: AF ocus indicator LED (X | | Shutter can be released. | |
| | M mode<br>AF fo us indicator LED (X | | Shutter can be released. | |

## Trouble data for switches (F-801)

| Switch trouble | LED display External/Internal | AF operation S mode/C mode | Shutter release operation | Film advance/ rewind operation |
|---|---|---|---|---|
| AF A/M selector switch is short-circuited. | A: Normal in both S, C mode. | Normal | Normal | |
| | M: No focus indicator LED appears (○ and X). | AF motor rotates loosely. | | |
| AF S/C selector switch is short-circuited. | | | S: Shutter can be released when subject is out of focus. | |
| | | | C: Normal | |
| Remote control terminal switch is short-circuited. | Normal | AF, S: Blank film is advanced when power switch is ON. AF lens moves slightly and then cannot move. | | |
| | | AF, C: Blank film is advanced when power switch is ON. AF lens moves (focusing is normal), but no forced scanning is performed. Shutter release becomes impossible. | | |

| | | | | |
|---|---|---|---|---|
| | | AF, M: Blank film is advanced when power switch is ON. AF lens does not move. Shutter release becomes impossible. | | |
| AV interrupter is open. | Normal | Normal | A mode: Normal.<br>P, S mode: Becomes the minimum aperture. (Setting aperture ring.) | |

# Trouble data for switches (F-801)

| Switch trouble | LED display External/Internal | AF operation S mode/C mode | Shutter release operation | Film advance/ rewind operation |
|---|---|---|---|---|
| AF interrupter is open. | Focus indicator LED lights up. | AF, M: Normal | | |
| | | AF, S: AF operation is unstable. (Moves back and forth around focusing position and shutter is released sometimes.)<br><br>AF, C: AF operation is unstable. (Shutter can be released.)<br>Forced servo operation is small. | | |
| Short-circuit. (VCC side on GND) Same as that VCC of DC-DC converter is short-circuited. | Contrast of LCD display is not sufficient. Shutter speed, aperture values are not displayed. | Does not operate at all. | Does not operate at all. | |
| Poor soldering of power FPC: inductor (L101). | | | 53mA current flows even when power switch is OFF.<br>VCC= Approx. 1.3V<br>VDD= Approx. 3.0V | |